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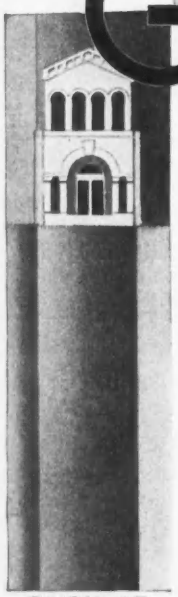

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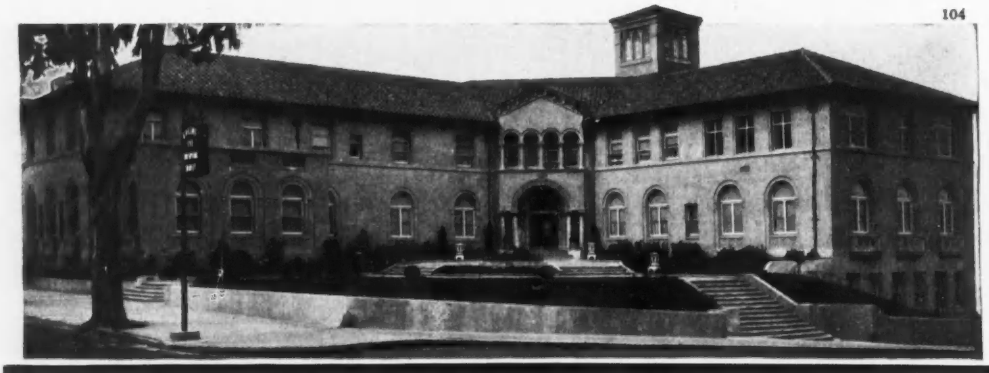

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VOLUME XXXVIII MAY, 1933 No. 5

MEDICINE AT THE CROSS-ROADS*

By RAY LYMAN WILBUR, M. D.
Stanford University

MY topic, "Medicine at the Cross-Roads," was chosen with the idea in mind of presenting to you some of the problems that face the medical profession in the immediate present. In the short time that I have had association with the medical profession we have met and conquered a series of crises.

The first one came when I was a medical student in the encroachment of the laboratory upon the field of medical education. The laboratory required new and large financing. It compelled attention. There were two main paths open. One was to disband or modify the large number of existing medical schools, to eliminate the commercial medical school and to make sacrifices that would permit the development of clinical medicine and science side by side. The other path was the cheap one. That was the road taken by the osteopath, the chiropractor, and others. The medical profession was well directed. It was possible for it to have held back the advancement of science for a generation. It did not. It went right into medical education and helped. Many of the older men who had fought for a lifetime for positions on the faculties of medical schools resigned and turned their work over to young men developed along more scientific and laboratory lines. The result of this was that in thirty or forty years medical education in the United States has reached a position second to none in the world. Those sacrifices were made by the medical profession honestly, promptly, and very intelligently.

Then came the crisis of public health. What should the doctor do? Should he absorb the responsibility of public health or fight the new measures that were being inaugurated? Most of the medical profession had been trained to treat disease. It was reasonable to expect that with scientific laboratories and enlarged personnel, public health could be very effective in controlling disease. Again the physician took the path of difficulty for him. For the new system of preventive medicine resulted in changing almost every phase of the old practice of medicine. The physician joined in on the attack on typhoid fever, insisted on the control of smallpox, pushed malaria into the background, and fought to control syphilis. Much of medical practice was changed, but the changes were welcomed. The doctor had fewer patients but there was better health, not only for adults but for the children, and the lowest morbidity rates the nation has ever known were brought about. Again we see here the medical profession facing the issue, with the result that we have an increase in the average age span of our citizens. This, too, has changed the practice of medicine. At the same time we have met the question of an increased number of mental cases. Whether this has come from the extension of the age limit or from other sources connected with our civilization is not so important as it is to recognize that medicine is rapidly taking on a full responsibility for mental cases and preventive mental hygiene.

Associated with the control of mental conditions has been the increasing encroachment of the government into the field of the care of the sick. Hospitals cost money. Hospitals were required for mental cases. Other forms of medical care, such as tuberculosis, demanded hospital attention. There were only two sources of money—the government and private funds—so that private and public hospitals grew up side by side, but the number of beds in the public hospitals has increased much more rapidly than in the private. The tendency has been to give superior care to the indigent and to all accepted as public charges. If we note the development of public hospitals by the county, the state, or the municipality, we can see here in California, in the great San Francisco Hospital and the magnificent new Community Hospital in Los Angeles, just what the public has been willing to do. These buildings and their maintenance came out of the taxpayer, although the taxpayer knows, if he knows anything about his taxes, that he was just the one who would not land in the hospital provided by his expenditures. It was the nontaxpayer who would go into these institutions.

But more dramatic than these rapid changes were the relationships of the physician to the Great War. He selected the men to go into service with the Expeditionary Forces. He worked with enthusiasm and skill. Emergency hospitals

* Extemporaneous address given at the first general meeting of the sixty-second annual session of the California Medical Association, Del Monte, April 24-27, 1933.

were developed of very high quality. But with the war there developed habits of large spending and with the great source of income provided by the income tax it was easy to go forward in the name of the public with a hospital-building program such as has never been seen before—the Veterans' Bureau hospitals. We have planted them all through the United States. They were the last word in hospital buildings. Certain regulations were passed by Congress, many of them not on the recommendations of physicians, but in spite of them. We have seen the greatest hospital service in the world thus built up by our Federal Government. It was a new encroachment in a field we had thought of as belonging to medicine itself.

Now as we review the country's hospital program, we find that over 70 per cent of the hospital beds in the country are paid for by the government. If you will permit me to give just a figure or two: there are 7,000 hospitals with approximately 1,000,000 beds, 200,000 of them vacant at the time of this survey. Of some billion dollars or more for annual maintenance, 46 per cent comes from patients, 46 per cent from taxes, and about 8 per cent from endowment funds, gifts, community chests, and the like. Get the picture. About 46 per cent of the maintenance charge for the hospitals is paid for by the government. At the present time there is low occupancy of the beds in institutions supported by endowment or by patients' fees. There is high occupancy in most of the government-supported hospitals. In the course of a year one person in seventeen gets into a hospital, but the total expenditures for hospitalization are as much at the present time as for all other forms of medical practice. One out of seventeen must meet one-half of the expenditure for medical service in any one year. We find that the average cost of a patient's going into a hospital is $140. The hospital gets 39 per cent, the nurse 8 per cent, and the physician approximately 45 per cent.

The next crisis faced by the general practitioner was the development of specialism in medicine. Specialism has grown up rapidly in the last thirty or forty years and has become almost a fad with the public. One was not considered a member of high society in many parts of the country unless he had gone to a certain specialist. It has developed so that some 30,000 specialists now have a larger income than 70,000 general practitioners. The advance of the specialist came in with the hospitals, and in our discussion we should all frankly face the question that the hospital and the specialist have been closely associated. This is not a criticism of the specialist. He has been most effective and has done good work, but he has had more than his share of the income that would otherwise have gone to the general practitioner. Just as the surgeon received larger fees than the internist, so the specialist has been more favored than the general practitioner. All of these forces have had a profound effect upon medicine. Many of us have failed to sense their significance.

Where do we stand today? We find new and unusual problems before us of an economic sort. A Committee on the Costs of Medical Care started in some years ago to study and obtain the facts regarding all of the costs involved in the care of the sick. It was a long, extensive and expensive study. Out of it came some twenty-eight bulletins. Each one presented as clear a picture as could be obtained in a difficult field. Whether you like the facts in these bulletins or not they have to be met. There they are and there is no escape from them. The great question before the medical man today is, is he willing to look those facts in the face?

I like to tell the story of the colored man who said, "When I has anything to say to a mule, I says it to his face."

If we have anything to say to these facts, let us look them in the face and not get around where they may start into action. The doctor is not inclined to fool himself. He knows that facts control. It is because of this that I have confidence that we will succeed in meeting this crisis as we have the others.

Over the years something has been developed which we have hardly sensed. Forty years ago the doctor had the largest part of the income from the patient, but the physician of today has less than one-third of the total expenditure for illness. The rest of it goes to hospitals, to drugs—many of them not so important perhaps, because they are self-administered—to the dentist, the nurse, and so on. In other words, the accessories weigh far heavier in the economic field than does the doctor himself. Certainly this means that if the doctor is to control with only one-third of the income in his hands, he must lead. Should he fail to lead in this tangled social and economic situation, others will step to the fore. There is going to be a bell-mare that will lead us out of our present difficulties. I want that bell-mare to have the label of M. D.

Some of you have, no doubt, seen the collection in the Los Angeles Museum of the skeletons taken from the asphalt beds of Southern California. There are the sabre-toothed tiger, the camel, the great cranes and a lot of other animals, now extinct, that used to roam the Southern California plain. Among these we find the skulls of the pocket gopher. These skulls show that the pocket gopher of today was the pocket gopher of those prehistoric ages. He learned how to meet conditions. He stored foods against drought, he protected himself against flood, he was able to avoid his enemies. If there were no grasses or seeds he ate roots. This has permitted him to go through tens of thousands of years and succeed. He met the processes of evolution and overcame them. The forces of evolution are operating in medicine. Tradition is a good thing, but traditions have killed off more races than anything else. The traditions of the medical profession are among the great possessions of the human race, but traditions must mold with changes. Some of our traditions must give way to meet the conditions

of today. Blind adherence to the past must not lead the medical profession, as we know it, into extinction. As far as I can see, the greatest stress before the medical profession of the present day will be necessary economic adjustment. We can in no way avoid the implications of the present situation. It is essential to maintain the proper relation of patient and physician.

I have already pictured some of the happenings in the Veterans' Bureau. For some years I was chairman of its Medical Council. We made recommendations on questions of compensation, care, disability ratings, etc. We saved the government millions of dollars. But our decisions were not elastic enough to please those desiring help and the politicians. Had the director of the bureau been a medical man with power to make decisions on the basis of scientific medicine, we would have a vastly different picture in the Veterans' Bureau today. The decisions were largely made, although basically of a medical character, by those without a medical training. The very presence of the hospitals was a temptation to expenditure.

The young people of today who are starting out to build families know more of the possibilities of medical care than ever before in our history. They may have limited financial means, but more and more of them want all that science can offer in the care of their own bodies and those of their children. If they cannot secure what they know exists through the doctor, they will get it through the politician, for the politician has found this a way to get votes. There is no escaping this. Look at the great Los Angeles Hospital, built by the taxpayers.

The question then is, will the doctor be able to sit on top of the pack? Will he be the captain during these present transformations or will someone else tell him what to do? The answer is in the hands of such men and women as are gathered here at this medical meeting today. The cigarmaker tried for a long time to compete with the machine. He does not any longer. The machine got him. Individually we cannot compete with the present economic forces. Collectively we can steer the great medical machine that has developed if we think in terms of the whole public and if we meet the legitimate needs of our people for medical service.

Out of the population in a given year only so many are sick. Of the people that are sick a considerable number are indigent and automatically fall into the taxpayers' pocket. The others belong to different economic groups. In America we have been on the way up all of the time. We have not thought of a stratified society. We think of a constant rise of young men and young women from the bottom to the top. As I have said, these young people want the very best medical care in the very beginning of their economic period of earning a living. We can picture readily the burden of sickness that strikes our nation in the course of any given year. We can prophesy just about what it will be in character as well as in extent, but no one can prophesy what the burden of sickness will be in so far as the individual is concerned. Only a comparatively few are sick, and yet those few must bear the heavy medical costs. The hospitals, the various laboratories, the dentists, the nurses—all come in for their share. The great mass of men and women want to pay their own way. They want to meet the costs of medical care. This is impossible at the present time unless we devise a method that will spread the payments over a much longer period of time than just the period of an illness. We must spread it, too, over large numbers of individuals rather than over a few. In other words, there must be periodic payments over a long period of time to provide for the concentrated costs of illness. Otherwise they cannot be paid. This means that an insurance basis must be devised to give security to the physician and care to the sick. If we grant that this is the best plan the most important question is, who is going to organize it? Who is going to handle it and protect the interests of the doctor and of the patient? Is it going to be the government, is it going to be the doctor, is it going to be someone in between? Is there a place here for the commercial insurance companies? No, for there is no advantage in going easy on the insurance company. A mutual organization seems to be the only one. A nonprofit organization it must be if it is to be effective.

Who is going to set it up? For such organizations are going to be set up here, there, and in other places throughout the country. It will cost less than $40 per year per person to provide medical care on a substantial basis. Probably the figure can be much reduced. It is easy to see what the broad situation is. The larger the number involved, the greater the sums received, the less the costs are apt to be to any one individual. We must remember, too, that we are not giving medical service to all members of the population as we should. The committee's studies show that there is a considerable percentage of our people who receive no care from either physician or hospital. There are millions who never have periodical examinations. There are millions who receive no dental care. In fact adequate medical care would require 60 per cent more service from physicians than we now have. The field is wide open to the physician. This does not mean that the doctor is going to secure great profit out of a better organized economic mechanism. We must remember that, viewing the ranks, the doctor is receiving very modest compensation, for on an average the income statistics show that he receives for himself $4,000 to $5,000 a year and that in many parts of the country $2,500 is the outside figure. Many members of the medical profession have to make $5,000 to $10,000 before they can buy even a postage stamp for themselves. They are working for the automobile, the nurse, the telephone, the office building, for a long time before they get around to provide anything for themselves. The doctor, too, needs to keep up with the rapid progress of medicine. He needs to keep his body in good physical condition. Keeping up to date is his primary responsibility. Every

doctor in California ought to have a vacation at least once a year and ought to have a period of educational training every three years. It takes money to do this. It takes organization to provide the opportunity for him to go and also to return and fit back in again into his life's work. Without increasing our present expenditures for medical care, but with readjustments within those expenditures there would be sufficient funds available to adequately protect the welfare of the physician and to provide for the care of the sick. Undoubtedly, with different standards there would be some increase required which would be gladly met by the public.

There are some very practical things for us to do. In front of us are held up certain bogies and scare-crows. Attempts to organize economics in medicine cannot be stopped by calling names. I have recently had a considerable experience with government. I have learned to know what is called the government bureaucrat. He is an honest, effective citizen, but I have lived and slept with him for four years and have become afraid of him in the field of medicine. We are fortunate in this country in that our Federal Government has for the most part in its one hundred and fifty years of history not encroached upon public education and personal health. These have been under the control of the states. Education has been put in order, has been supported and organized under the immediate control of state and local governments. Personal health has not been. The relationships of the Federal Government to public health have been carried on with due regard to the rights of the states. If there is to be anything done by the government in the matter of the costs of medical care, it should be done by the smaller units of government and not by the Federal Government itself. Each state and each community are different from the others. The conditions in California are as different as can be from those in Mississippi. What might be successful in Mississippi cannot apply here. We must take up the situation where we find it today. Each community has in it so many physicians, so many hospitals, private or public, and so many services. These form starting points for any future programs. As it stands today the hospitals under private endowment and private auspices are in real difficulties. There will be a tendency for them to die out and for the public hospitals to grow in size and responsibility. Since around each hospital, public or private, there is now a grouping of physicians and many of the accessories of medicine, why not use these existing institutions as centers about which to congregate the forces of medicine. It seems to me that by increasing the facilities and the physicians and introducing some form of periodical payments the most effective and promising experiments could be carried out. It is not difficult for us to develop solutions in this field. I am convinced that unless we do so the forces of government will compel some such organization. If we can build up islands of control on a sound basis throughout the state around such centers, we can have reasonable security that they will grow and that the man of medicine can control much of his future. There is the expression of fear in connection with such plans that there will be interference with the private practitioner, the free choice of physicians by patients, and so on. This need not be if the proper organization under the proper controls is brought about. We have to remember that the family practitioner has met one thing after the other in recent years and he is still the dominant factor in medical practice. The specialist has damaged his position, but has been unable to take his place. The general practitioner is the key to the situation. We have discounted somewhat in our development of scientific medicine the clinical skills of the general practitioner. I was interested a while ago to learn that one of our medical schools had tried to secure funds to hire a general practitioner to teach medicine. He has lessons for the medical student of today that can be learned in no other way, but the general practitioner cannot survive unless he has help. Undoubtedly, too, like the pocket gopher, he must meet conditions of all sorts and still be himself. In the days gone by it was easier when 90 per cent of the income from the care of sickness came to the doctor and when 90 per cent of the care of the patient was actually performed by the doctor than it is today. Now with widespread hospitals, good highways, and automobiles, there is easy access to medical care in most parts of the country. The old family doctor had no such fund of knowledge as is now possessed by the general practitioner of today. With the increase in knowledge has come increase in facilities and with them all the family doctor must coöperate. He should be the master of ceremonies, but he cannot be master if the situation becomes so complicated that there is no money for him. We must work out plans so that there will be a wide place for him in the rim of the so-called medical dollar. To do this we must very soon get down to the point of decision. In the next five years the paths of the future of the practice of medicine for many years ahead will be determined. The medical profession must take the leadership. If not, others will. I am convinced that any smart politician could be elected governor of this, or any other state, if he will assure the people of the state of a universal distribution of medical care at a low cost. The physician must take up his traditions and march forward with them for the good of his patient and himself. Tradition was a great baby killer. It can become a great doctor killer unless the physician is willing to look the facts now available right in the face. If we waste our time in arguing as to whether minority reports or majority reports are the better, we are paddling in water that is already over the dam. As a coöperative body giving the best service we can to the public, the medical profession should be ready to steer the craft over the shoals of medical economics in the state of California. We must do it. That is the message I leave with you.

Stanford University.

REPORT OF THE COMMITTEE ON THE COSTS OF MEDICAL CARE *

ITS SIGNIFICANCE TO THE MEDICAL PROFESSION

By ARTHUR C. CHRISTIE, M. D.
Washington, D. C.

THE publication of the report of the Committee on the Costs of Medical Care has taken place at a time when the entire world is in a state of great social unrest. There is uncertainty in every field of human relations. The only certainty seems to be that change is inevitable. The poorest argument in favor of any plan at such a time is that "it is timely." What is "timely" today may be incongruous tomorrow. Such rapidly changing social conditions render it exceedingly important that all proposed new plans be scrutinized with the greatest care. There never was a time when neat panaceas were so out of place or when it was more important to plant ourselves firmly on sound basic principles.

VALUE OF THE REPORT OF THE COMMITTEE ON THE COSTS OF MEDICAL CARE

The medical profession, engrossed as it has been in the advancement of the science of medicine and the art of medical practice, has come only slowly to realize that it has a vital interest in the economic and social aspects of medicine as well as in its advancement as an art and science. One of the chief values of the report of the Committee on the Costs of Medical Care is the fact that it has aroused nation-wide interest in these subjects on the part of the profession.

BASIC DIFFERENCES BETWEEN MAJORITY AND MINORITY REPORTS

The views and recommendations of the majority of the Committee on the Costs of Medical Care have been fairly and adequately presented. The fact has been pointed out that there are many points of agreement between the majority and minority reports. It is possible to so tabulate categorical statements of each of the reports as to make it seem that there is no essential difference between them. They differ, however, in two vitally important respects, namely, in the method of approach to the problem and in the emphasis placed upon certain aspects of it.†

APPROACH OF THE MINORITY REPORT

The minority approached the problem with the idea of carefully conserving all of the important values in our present methods of medical practice. We were especially concerned to preserve the personal relationship between physician and patient, the free choice of physician by the patient and all of those aspects of the practice of medicine which have established it as a great profession, free from commercialization. We were not willing to permit ourselves to be influenced by the charge that the medical profession is ultra-conservative and unprogressive and that we would be blamed as reactionaries if we failed to agree to the proposals of the majority. It is true that medicine is a conservative profession, but its conservatism has repeatedly saved the people from exploitation. Such conservatism has manifested itself particularly in combating the use of nostrums and the activities of quacks. The tremendous progress of the science and art of medicine in the past fifty years is sufficient refutation of the charge of unprogressiveness. The charge has arisen because the profession insists upon careful scrutiny of proposed changes in methods of caring for the sick and especially because it insists that new methods or procedures be founded upon the sound basis of past experience or upon careful experimentation. It is our conviction that several of the important changes in medical practice proposed by the majority of the Committee on the Costs of Medical Care do not meet these requirements.

MINORITY REPORT RECOMMENDATIONS ON PRESENT-DAY PROBLEMS

The minority also approached the problem from the standpoint of what is immediately practical and beneficial under the present conditions of medical progress and social organization, and recommended first those methods which would eliminate waste in our present system. Our first recommendation was for certain changes in governmental activities in the care of the sick. We would like to see the government confine itself to those activities connected with the public health and the public services, such as the Army, Navy, etc., and to eliminate the excessive waste in the present methods of caring for veterans. We could see no good reason why the whole people should be charged with the care of the sickness or disability of veterans which is in no way connected with war service, especially when such care must be accompanied by tremendous waste due to transportation of veterans between their homes and government hospitals and the multiplication of hospital beds far beyond the country's needs. It is gratifying to note the improvements already initiated in veterans' relief by the present administration. This greatest threat of the establishment of state medicine seems, under the stress of economic conditions, to be removed for the time being. We wished to see the government curtail its activities in this direction, but on the other hand we recommended that the medical care of the indigent become increasingly a community problem instead of a problem for the medical profession alone. The care of the poor is the greatest burden now upon the profession. We believe that this burden should be assumed by the entire community and that the physician should bear only his share of it like any other citizen. It seemed to us illogical to assume that the community would be willing to spread the costs of caring for persons with low or moderate incomes before it is demonstrated that communities would generally take care of those who have no income at all.

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* Read before the first general meeting at the sixty-second annual session of the California Medical Association, Del Monte, April 24-27, 1933.

† Editor's Note.—Digests of the Majority and Minority Reports were printed in the December 1932 CALIFORNIA AND WESTERN MEDICINE, page 397.

JOINT MAJORITY AND MINORITY RECOMMENDATIONS

In continuation of these recommendations for elimination of waste in our present methods, the minority joins with the majority of the committee in emphasizing the importance of careful studies in each community with a view to better coördination and evaluation of our present methods and agencies for caring for the sick. Nearly every community needs some authoritative body to coordinate and control its existing health agencies, including its hospitals.

The majority of the committee probably agree with us in all of these recommendations, but they treat them as matters of secondary importance. It is the belief of the minority that the entire problem would be simplified and would assume different proportions if the above recommendations were put into effect.

OTHER ASPECTS IN SOLUTION OF PRESENT-DAY PROBLEMS

There is another aspect in approach to the problem which the minority believes must be considered. The problem has been confused by attempts to isolate it from its natural setting in the social order. This has resulted in proposals for its solution which have no proper relation to medical progress on the one hand, nor to fundamental questions of public welfare on the other. It is essential if cures are to be found for present difficulties, and especially if the problems of medical care are to be settled on any permanent basis, that they be understood and dealt with in their relation to the entire social-economic situation of the nation.

ANALOGY BETWEEN "MEDICAL SERVICE" AND "FOOD AND SHELTER"

The first paragraph of the report of the Committee on the Costs of Medical Care is as follows: "The problem of providing satisfactory medical service to all the people of the United States at costs which they can meet is a pressing one. At the present time many persons do not receive service which is adequate either in quantity or quality, and the costs of service are inequably distributed. The result is a tremendous amount of preventable physical pain and mental anguish, needless deaths, economic inefficiency, and social waste. Furthermore, these conditions . . . are largely unnecessary. The United States has the economic resources, the organizing ability, and the technical experience to solve this problem." If the words "food and shelter" are substituted in the above paragraph for "medical service" and "service," the statement will remain just as striking as the original and nothing will be subtracted from its truth. It would then read as follows: "The problem of providing satisfactory *food and shelter* to all the people of the United States at costs which they can meet is a pressing one. At the present time many persons do not receive *food and shelter* which is adequate either in quantity or quality, and the costs of *food and shelter* are inequably distributed. The result is a tremendous amount of preventable physical pain and mental anguish, needless deaths, economic inefficiency, and social waste. Furthermore, these conditions . . . are largely unnecessary. The United States has the economic resources, the organizing ability, and the technical experience to solve this problem."

It is, of course, recognized that the two problems are different in their details, but both have the same underlying social and economic basis. The solution for one is the cure for the other, and no permanent solution for either will be found until that for both is put into operation. All other solutions will be in the nature of temporary expedients which may eventually only substitute new evils for old.

ECONOMIC NATURE OF MEDICAL CARE

Fundamentally the problem of the provision of medical care is an economic one. The common statement that "only the very rich and the very poor receive good medical care" is far from the truth. Generally speaking, the adequacy of medical care is directly proportionate to the economic status of the family, just as is the adequacy of food and shelter. It is highly desirable that society should progress to the point where all are assured of the essentials of life, one of which is adequate care in time of sickness or injury. Until this ideal is attained there will be suffering and hardship. It seems clear that the solution must be sought in fundamental changes in the distribution of the fruits of industry which will enable the great mass of people to provide themselves constantly with the necessities of life. If our leaders of industry would address themselves unselfishly to this problem in its broadest aspects instead of devising paternalistic and socialistic schemes directed at isolated portions of the problem, hopes of solution would be brighter.

DIFFICULTIES FACED IN THIS ECONOMIC PROBLEM

The problems of furnishing medical care to all the people at costs which they can afford are complex and difficult. On the one hand they have arisen from the outstanding advances in the science and art of medicine during the past fifty years. Revolutionary changes have taken place in the care of the sick by developments in bacteriology, aseptic surgery and radiology, to name only a few of the fields in which great advance has been made. On the other hand, social changes have been almost revolutionary in nature. The luxuries of life of forty years ago are now necessities. The population has changed from one predominantly rural and agricultural to one which is urban and industrial. All of these changes, both in medical science and in society, are reflected in the costs of medical care. What satisfied people in the nineties is now entirely inadequate. People demand more, including all of the increased facilities for medical care. It is in the very nature of the case that it must cost them more.

SOME FUNDAMENTAL FACTS

With this background let me call your attention to certain facts which are essential to an understanding of the problem. The total annual cost

of medical care in the United States is about $3,600,000,000. This includes all that is spent for the care of the sick and injured and also the entire expense of public-health activities. About $514,000,000, or 14 per cent, of the total amount is met by taxation. Approximately $188,000,000 is provided by private philanthropy. Seventy-nine per cent of the total, or about 2.9 billions of dollars, is paid by individual patients or families for medical care. Of this amount, about $446,000,000 is for dentistry, $270,000,000 for hospital care, and the huge sum of $665,000,000 for drugs, half of which is for patent medicines. There remains about one billion dollars which is paid to the physicians of the country.

MEDICAL CARE COSTS IN COMPARISON TO OTHER COSTS

Now, three and a half billions of dollars seems a huge sum for the nation to pay for medical care. It is, however, only about 4 per cent of the national income and, when compared with other things for which people spend their money, it does not seem so large. For instance, a considerably larger sum than the total amount spent for medical care is spent for tobacco, candy, chewing gum, and cosmetics. The difficulty is not in the total amount spent, but in the uneven distribution of the costs of sickness. The 2.9 billions spent by individuals is not distributed evenly over the 123 millions of the population, but only among the 60 per cent of them who are ill in any one year. Further than this, of the 60 per cent who are ill about 80 per cent of them have light illnesses which cause little financial burden. The real hardship comes to the 20 per cent of 60 per cent of the people who have what has been called "castastrophic illness." We can further eliminate the rich and the indigent from the problem. The great complaint comes from the so-called moderate income class, which, of course, makes up the bulk of those who receive any income at all.

THE RESIDUUM IN THE PROBLEM

With the problem thus reduced it is still a problem which demands solution. At its minimum there are still a great number of families who find it exceedingly difficult or impossible to pay the costs of hospitalized or prolonged illnesses or for those illnesses which require expensive surgical or other special treatment.

No one understands the extent of these difficulties any better than the members of the medical profession. It is realized within the profession that certain changes in methods and improvements in practice can be of assistance in solving the problems of the costs of medical care. In the field of medical education, for instance, it is important that greater emphasis than heretofore be placed upon the training of physicians in the methods of disease prevention as it applies to public health and to the individual. Not only must the general practitioner be trained to occupy a larger field, but there must be better training and better control of specialists.

The Committee on the Costs of Medical Care was unanimous in agreement upon the necessity for strengthening and extending public-health activities, for certain changes in medical education, and for coördination of medical services in each state and local community.

WHERE THE MAJORITY AND MINORITY REPORTS BEGIN TO DIVERGE

Up to this point there are no fundamental differences which could not be readily composed. The minority believes that we should approach the problem by carefully conserving everything of value in our present system and by first correcting those wastes and maladjustments with which it is immediately practical to deal. It is our view that the majority has plunged into the middle of the problem with utopian recommendations whose outcome no one can foresee, and that they have not sufficiently emphasized the interrelation of the costs of medical care and all of the other basic economic questions of our present maladjusted society. These, however, are questions of method and approach. I come now to consider the specific questions upon which there is real disagreement, which no explanations can reconcile.

THE FIRST MAJORITY RECOMMENDATION

The first recommendation of the majority of the committee is as follows: "The committee recommends that medical service, both preventive and therapeutic, should be furnished largely by organized groups of physicians, dentists, nurses, pharmacists, and other associated personnel. Such groups should be organized, preferably around a hospital, for rendering complete home, office, and hospital care. The form of organization should encourage the maintenance of high standards and the development or preservation of a personal relation between patient and physician."

It is clear, both from the wording of the recommendation and from the explanations in the text, that the committee contemplates a system of practice quite different from that carried on by what has been understood heretofore as group practice. Under this recommendation the entire medical profession is to be concentrated into groups, preferably very large groups in medical centers. The committee's statement with regard to this is as follows: "The committee's most fundamental specific proposal is the development of suitable hospitals into comprehensive community medical centers, with branches and medical stations where needed, in which the medical professions and the public participate in the provision of, and the payment for, all health and medical care, with the professional aspects of the service under the control of professional personnel."

THE MINORITY REPORT'S COMMENTS ON THIS

The minority report states that this plan, with its "branches and substations" has the familiar aspects of so-called big business organization. Certainly there is little in the present state of industry or the economic situation of the world to make it seem desirable to extend into the management of the professions those methods which have been in operation in industry and business. "Organi-

zation" has been almost a fetish in the business and industrial world, but the medical profession has not been generally attracted to its worship. The following paragraph from the minority report of the committee shows its attitude on this subject: "The medical center plan is the adoption by medicine of the technique of big business, that is, mass production. It seems almost impossible for those who are not engaged in the practice of medicine to understand that the profession of medicine is a personal service and cannot adopt mass production methods without changing its character. It is always the individual patient who requires medical care, not diseases or economic classes or groups. The neglect of this principle in other fields has brought serious evils that are now being corrected only with great difficulty."

SOME FACTS TO BE REMEMBERED

An important fact which should always be considered in connection with plans for group practice and group payment is the well established one that about 80 per cent of all illnesses are simple in nature and can be adequately treated by a general practitioner without the aid of specialists or elaborate apparatus. The proposal now is to set up the elaborate organization and machinery of the medical center or of multiple groups to care for all illnesses, including the 80 per cent who do not need group study or care.

Another fact that has been overlooked by the majority of the committee and which was pointed out by the minority is that multiplication of clinics and groups in large cities inevitably results in providing expensive equipment far beyond the communities' needs. Every additional group must have its specialists with all necessary equipment for their use even though the city may already be well supplied with such equipment. The minority of the committee said with regard to this: "It serves no good purpose to reduce overhead in individual clinics if the total cost to the community is increased through duplication of plants."

MINORITY REPORT VIEWPOINTS ON GROUP PRACTICE

The views of the minority on the subject of group practice were summarized in the following paragraph:

"The minority recognizes the advantages of group practice under certain conditions, especially in communities where practically all of the physicians can be joined in one, or at the most, in two groups. It does not believe that group practice offers any real solution to the problems of the costs of medical care except under very restricted conditions. The dangers of group practice are already apparent and the advantages either to the medical profession or to the public are limited."

ANOTHER MAJORITY REPORT RECOMMENDATION

The other recommendation of the committee which caused disagreement and which has created much discussion is as follows: "The committee recommends that the costs of medical care be placed on a group payment basis, through the use of insurance, through the use of taxation, or through the use of both of these methods. This is not meant to preclude the continuation of medical service provided on an individual fee basis for those who prefer the present method. Cash benefits, *i. e., compensation* for wage loss due to illness, if and when provided, should be separate and distinct from medical services."

The insurance plan favored by most of the majority was of the voluntary type. A few were in favor of immediate state control of medical practice through compulsory types of insurance.

MINORITY COMMENTS ON VOLUNTARY AND COMPULSORY INSURANCE

The minority report makes the following statement relative to voluntary types of insurance: "It seems clear that recommendations for further trial and expansion of voluntary insurance schemes in the United States are entirely inconsistent with the committee's own findings. To recommend that our own country again experiment with discredited methods of voluntary insurance is simply to ignore all that has been learned by costly experience in many other countries as well as in our own. Voluntary insurance systems are now in operation in many parts of the United States and are increasing in number and in size. In many places these schemes are being operated in accordance with the plan recommended by the majority of the committee, that is, by making contracts with organized groups of the medical profession. That they are giving rise to all the evils inherent in contract practice is well known. Wherever they are established there is solicitation of patients, destructive competition among professional groups, inferior medical service, loss of personal relationship of patient and physician, and demoralization of the professions."

With regard to compulsory types of insurance the minority group made the following statement: "The objections to compulsory health insurance are almost as compelling to this minority group as are those to voluntary insurance. The operation of every form of insurance practice up to the present time has resulted in a vast amount of competitive effort on the part of practitioner groups, hospitals, and lay-controlled organizations. Such competition tends to lower the standards of medical care, degrade the medical personnel, and make medical care a business rather than a profession. Proof of this is at hand in our own experience in this country with the only compulsory system with which we have yet had to deal, workmen's compensation insurance. The results named above are prevalent in many states. This is the rule to which there are a few notable exceptions. Under workmen's compensation, groups are soliciting contracts, often through paid lay promoters; laymen are organizing clinics and hiring doctors to do the work; standards of practice are being lowered; able physicians outside of the groups are being pushed to the wall; the patient is coerced by his employer to go to a certain clinic; and the physician is largely under the control of the insurance companies. These are not visionary fears of what may happen, but a true picture of widespread evils attending insurance practice. We

should need no better example of what must happen to medical care if compulsory insurance is extended to families."

EVILS OF SOME INSURANCE PRINCIPLES

The minority report tried to make it plain that it is not opposed to the insurance principle but only to the evils which seem inevitably to attend attempts to put it into practice. We recognized the fact that the adoption of some method of distributing costs of medical care to certain limited groups is inevitable. We know by the experience of both Europe and the United States of the evils attending insurance medicine and we wish at all costs to avoid them. There are, in addition to the evils enumerated in the extracts from the minority report which I have just read to you, certain facts with regard to insurance medicine which should be kept in mind. In the first place, the total costs of medical care are not decreased under insurance systems but actually and materially increased. This results because of the cost of administering the insurance and because of the rather astonishing fact that under insurance systems there is always an actual increase in days sickness per capita. Simons and Sinai, in their report on European health insurance, make the following statement: "Contrary to all predictions, the most startling fact about the vital statistics of insurance countries is the steady and fairly rapid rate of increase in the number of days the average person is sick annually and the continuously increasing duration of such sickness. Various studies in the United States seem to show that the average recorded sickness per individual is from seven to nine days per year. It is nearly twice that amount among the insured population of Great Britain and Germany, and has practically doubled in both countries since the installation of insurance." Dr. L. F. Barker, one of the signers of the majority report, in his final address before the Committee on the Costs of Medical Care, made the following statement: "In European countries the mortality rate has not decreased under their insurance systems. In the second place, the average number of illnesses has increased. In the third place, the average duration of illness has increased under the insurance system; and, in the fourth place, some wholly new diseases, namely, the compensation neuroses, have come as a result apparently of these laws."

MINORITY REPORT RECOMMENDATIONS ON INSURANCE SAFEGUARDS

The minority report, recognizing the evils to which most insurance plans give rise, but also realizing that there must be some method of spreading the costs of high-cost illnesses, offers the following safeguards which should always surround any plan to distribute the costs of medical care: (1) It must be under the control of the medical profession. (2) It must assure not only nominal but real free choice of physician. (3) It must include all, or a large majority, of the members of the county medical society. (4) The funds must be administered on a nonprofit basis. (5) The patient must pay directly a certain minimum amount before insurance becomes operative. (6) It must make provision for community care of the indigent. (7) It must be separate from plans for cash benefits. (8) It must not require certification of disability by the physician treating the disease or injury. Under such safeguards the minority recognizes the value of trial of plans by county medical societies to distribute the costs of medical care.

COMMENTS ON CALIFORNIA MEDICAL ASSOCIATION STUDIES

Plans now being worked out here in California, fostered by the California Medical Association under definite prescribed rules, are being watched with extreme interest all over the United States. It seems important that such plans, under the initiative and control of the medical profession and in coöperation with the public health departments, hospitals, and public-spirited citizens, should be gotten under way as rapidly as possible. Otherwise the insurance plans already in operation, in many cases in the hands of lay corporations organized for profit, will be difficult to check. We must not, however, permit ourselves to be hastened into ill-advised action simply because such action seems to be expedient. Nothing is to be gained for either the medical profession or the public by trying new schemes simply to escape the charge of inaction. Every plan proposed must be carefully scrutinized to see that it fulfills the fundamental requirements of sound medical practice. It is true that any plan which depends upon joint action of the members of a medical society must require the members to submit to certain rules and regulations, but it is far preferable to operate under rules of our own than to submit to control by insurance companies, lay-controlled corporations, and finally of the state itself.

WHEREIN MAJORITY AND MINORITY REPORTS AGREE

I wish, now, to repeat that it should be made clear that the minority of the committee is in accord with the majority in all efforts to strengthen public health services and in the development of methods for prevention of disease; that there is no disagreement upon recommendations for elimination of waste in our present methods, better coördination of existing facilities for the care of the sick, or continued improvement in medical education. Even upon the questions of group practice and group payment the disagreement largely consists of difference in emphasis. The minority is not opposed to group practice under certain conditions, in fact it is fully recognized that group practice is often desirable and advantageous. There is, however, a tremendous difference between this position and that of the majority of the committee which recommends that *all* medical practice should be carried out by groups of physicians, preferably in great medical centers, and that the individual, private practice of medicine should be discontinued. The minority is *not* opposed to the spreading of the costs of medical care through insurance. It is opposed only to the

evils which have grown up under many different types of insurance practice. It is convinced that these evils can be avoided only when the safeguards set forth in the minority report are placed in operation.

CLEARLY DRAWN ISSUES

The issue is very clearly drawn. On the one hand we are to have the entire medical profession and all others engaged in medical care organized into groups furnishing medical care under contract to groups of laymen; at first they are to be permitted to operate under voluntary insurance, but later and inevitably compulsory insurance and state control is to prevail. On the other hand is the method described in the final summary of the minority report of the committee, as follows: . . . "medical care by the individual physician with the general practitioner in a central place; with groups and clinics organized only where the nature of the situation and character of the personnel render such organization a natural development; with elimination of wastes in our present methods and coördination of all existing agencies; with careful trial of new methods based upon sound experience; and with adoption of insurance methods only when they can be kept under professional control and destructive competition eliminated; all this through a well-organized, untrammeled medical profession true to the great traditions and ethical standards of the past."

FUNDAMENTAL DIFFERENCES IN APPROACH

It must be apparent that these are fundamental differences in approach to the problem. Both groups recognize the fact that there are evils to be corrected. The majority takes the position that these evils can be corrected only by radical changes in the system which has heretofore prevailed. Reduced to its simplest terms their plan proposes that medical care shall be entirely in the hands of medical groups and that it shall be paid for by groups of laymen. The minority contends that medical care is essentially an individual service and that it should be paid for by the individual to the limit of his ability to do so. It is admitted by all that about 80 per cent of all illnesses are of such a nature that they can be adequately cared for by the individual physician without specialized skill or elaborate apparatus, and that the individual is able to pay for such care without hardship. The problem is thus reduced to the care of those illnesses which require prolonged hospitalization or expensive specialized care or which produce chronic invalidism. The minority makes recommendations for the care of such patients through certain modifications in the present system which will spread the costs of the so-called "high-cost illnesses" but which require the individual to pay up to the limit which has been shown to be practicable in the various income groups. Such plans under the safeguards already mentioned, initiated by, and under the control of the medical profession, and insuring the preservation of the personal relationship of physician and patient are practical and desirable.

WILLINGNESS OF MEDICAL PROFESSION TO COÖPERATE

It is recognized that the medical profession must coöperate with all of those public-spirited citizens who are active in various movements for improvements in the people's health. In the present complex organization of society and industry, medicine has far-reaching social ramifications which cannot be ignored by the medical profession. The entire problem is one in which the profession must maintain a vital interest. Its attitude must be constructive and coöperative. Negative or obstructive tactics now will result in great harm to the profession and in the initiation of many ill-advised schemes under improper, commercial control. At the same time it is important that the laity support the profession in its efforts to combat the schemes of commercial organizations to exploit both the medical profession and the public under the guise of furnishing cheaper medical care. At the present time there is maladjustment in the application of medical care to the needs of the people, but it is not greater than the maladjustment in many other social-economic phases of society. It is essential if adjustments are to be hastened that there be cordial coöperation of professional and lay groups. No permanent good can come to society by adopting plans which will lower the quality of medical care or the standards of the profession upon which all must depend for that care, even though it be done in the names of the present-day gods—efficiency and organization. There is no doubt that the medical profession recognizes its increasing social obligations. It is anxious to maintain leadership in all problems pertaining to the health of the people, but it is also concerned that proposed new methods be solidly founded upon experience and that in adopting them we do not destroy the values accumulated through the years.

IMMEDIATE DUTIES OF INDIVIDUAL PHYSICIANS AND OF ORGANIZED MEDICINE

What then is the duty of individual physicians and of the organized medical profession at this juncture? Many seem to think that our main effort should be directed to maintaining the *status quo*. Familiarity with present-day problems, however, must impress one with the truth of the old colored preacher's definition. "*Status quo*," he said, "is de Latin for 'de mess we's in.'" There is no doubt that we can escape from the "mess we're in" only by constructive thinking and careful social planning.

UNSOUND PLANS MUST BE COMBATED

This is not to say that we are to offer no objections or opposition to plans that we believe to be unsound. In fact, I take this to be our first duty because there is immediate danger both to the profession and the public through the operation of a host of ill-considered or selfishly conceived schemes that are being launched almost daily in various parts of the country. We believe that the Committee on the Costs of Medical Care could have performed a great service by taking a strong and unequivocal stand against the commercializa-

ation of the practice of medicine, whether commercial practices are fostered by laymen or doctors. It should be remembered that there is no magic in the name "clinic" or "group" which can render ethical the solicitation of patients or solicitation of contracts when such practices are unethical on the part of the individual. If the members of the majority of the Committee on the Costs of Medical Care would today assist the medical profession to combat all selfish schemes to exploit the profession and the public, they could still do a great service. There is no grandeur in such service; the prosaic duties of housecleaning are tiresome and disagreeable, but they are nevertheless necessary. It is a fact that, although the majority of the committee did not intend it so, their recommendation for free trial of many plans has been an incentive to numerous organizations, set up to profit by the practice of medicine.

FIGHT FOR THE RIGHT MUST BE FIRMLY MAINTAINED

Even at the cost of being dubbed "obstructionists and reactionaries" we must oppose such organizations to the very limit of our ability. The most important point is that we shall make our opposition effective. The only way we can do this is by concerted action. The medical profession must stand together and act through its organizations as it never has before. When the day comes that no member of a county medical society will permit himself to be bullied or cajoled into assisting lay-controlled corporations to practice medicine that day will mark the doom of all such schemes, and the control of medical practice will return to the profession, where it belongs. We have heard much about what is going to happen to the medical profession, threats of what is going to be done for us and to us if we do not adopt certain schemes, but not much about assisting the profession to solve the problems with which it is struggling today. Now we have a right to ask, at least of the physicians on the Committee on the Costs of Medical Care, that they recognize the place of leadership of the medical profession in everything that pertains to the people's health and to give whole-hearted assistance to the profession in combating all unsound schemes. The second duty of the medical profession at this critical time is the careful study in every local medical society of the economics of medical care, and critical evaluation of every plan advanced for changes in the social-economic aspects of medical practice. I have already enumerated the fundamental considerations which should govern decisions upon plans for the distribution of medical costs through insurance. Some of these, such as the free choice of physician, the guiding control of the organized medical profession, and the avoidance of destructive competition between groups, are vital considerations.

HOSPITALIZATION PLANS

At the present moment the easiest type of insurance plan to put into operation seems to be that which provides for hospitalization. The American Hospital Association has set forth certain rules which should govern in all hospital insurance plans. Among them none are more important than those which require the participation of all the hospitals in the community, and the elimination of all professional fees from the flat-rate charges. The initiation of such plans offers an excellent opportunity for coöperation between the local medical society and the representatives of the hospitals. Both the medical fraternity and the hospital authorities should seek and welcome the opportunity to work together in these plans.

GROUP HOSPITAL INSURANCE PLAN SAFEGUARDS

There are however, two important provisions which should be added to the plans approved by the American Hospital Association. The first is an agreement among the hospitals participating in a group-hospital insurance plan that no hospital will engage in the corporate practice of medicine in any form whatsoever. This is a provision which the local medical society should insist upon before it places its stamp of approval upon any hospital insurance plan. There is a constant tendency on the part of hospitals to take over various aspects of the practice of medicine and to profit thereby at the expense of the medical profession. Many hospitals have already taken over clinical pathology, anesthesia, and radiology and have established these medical specialties as hospital departments from which the hospital receives revenue. It is only a short step from this to the establishment of departments to practice other medical specialties, and finally general medicine and surgery, until the entire practice of medicine is institutionalized.

It is well-known that hospitals are now doing a large amount of medical practice under the workmen's compensation acts and that they often go so far as to solicit such work. All such arrangements are wrong in principle and unsound in practice and should be constantly opposed by the medical profession. It would be of great advantage if the agreement which I mentioned above were incorporated in the plans for group hospitalization insurance. If the hospitals will agree to remain in their own field and refrain from encroaching upon medical practice at any point, they can be assured of the coöperation and assistance of the medical profession to carry out plans for group hospital insurance.

The second important addition to the group hospitalization plans of the American Hospital Association is an agreement among the hospitals participating in the plan in any community that they will refrain from participation in any group hospitalization plan except that of their own local coöperative association. Since the requirements of the American Hospital Association are that practically all of the hospitals of a community must participate in an approved plan, this agreement would go far toward eliminating the commercial companies from this field.

Such agreements as those I have just mentioned would be of great value in cementing good relations between the doctors and hospitals and would eliminate many of the objectionable features of group hospital insurance.

THE "GENERAL PRACTITIONER" CONTINUES AS A VITAL FACTOR IN MEDICAL PRACTICE

Finally, let me emphasize a duty of the medical profession which seems to me of fundamental importance. It involves the general practitioner of medicine and comes to the very heart of the difference between the majority and the minority reports of the Committee on the Costs of Medical Care. Notwithstanding much loose talk about the "passing of the general practitioner," he is today the center and foundation of the practice of medicine as he has been from the ancient days of Greece, where scientific medicine had its birth. The great traditions of medicine down through the centuries gather around him and many of its finest achievements are attributable to him. Even today when specialism has developed to a high point, when laboratory aids to diagnosis and treatment are multiplied almost beyond count and when groups and clinics are bidding for patients, it still remains true that nothing can take the place of personal contact between the physician and his patient. The practice of medicine at its best must always be a personal and very intimate service. Whatever methods are devised for supplying medical care to certain special groups or to certain types of sickness or disability, it will remain permanently true that more than 90 per cent of all medical care must be furnished by the general practitioner in personal contact with the patient. Neither the group, the clinic, nor the specialist can ever take his place. He will continue to do in the future, as he has in the past, the great bulk of routine practice which takes him into every household in the land and makes him the adviser and the friend in time of need. The general practitioner is facing today more difficult problems than any other man in the medical profession. They have arisen because of revolutionary changes which have taken place both within and without the profession. The medical profession should realize that it must rise or fall with him, and the public should be made to see that whatever injures the rank and file of the doctors of the land will inevitably bring injury to the people. To make the general practitioner more efficient should be our highest ambition as members of our common profession, to save him from evil should be the constant care of all. The medical profession faces nothing more important today than the restoration of the old-time family physician to his central place in medical practice. Our fortunes are inextricably involved with his. Here is a problem which the entire profession must help to solve.

FUNDAMENTAL IDEALS AND ETHICS ARE OUR PERMANENT HERITAGE

Problems such as these we are considering today will come and go in the course of social progress, but the fundamental ideals and ethics upon which our profession is founded constitute our permanent heritage, which we must pass on to our successors. The cynic may believe the frequently repeated statement that "ethics is bunk," but the fact remains that all social progress depends upon the acceptance of ethical standards. Medical ethics to the layman, too often, unfortunately, means the efforts of doctors to protect each other and to uphold their guild. It is true that, exceptionally, a wrong may be done in this direction, but medical ethics are founded upon eternal principles of justice and right and from the ancient days of medicine have furnished the incentive for high idealism and unselfish service to mankind. We must not be led by "counsels of desperation" to permit the breaking down of the ethical standards of our profession in the name of efficiency or the lowering of costs.

IN CONCLUSION

When the problems of the costs of medical care are finally solved it is probable that the recommendations of the Committee on the Costs of Medical Care for group practice and group insurance will play some rôle, but a very minor and limited rôle, in the solution. In the meantime these methods should be developed slowly and carefully and with strict regard to fundamental principles of medical practice which have been formulated and are well known to us all. At the present moment nothing is more important within the medical profession than a solid, united front. We must stand firmly together in our national, state, and county organizations to uphold the noble traditions and the high ethical standards of our profession. We must not permit ourselves to be broken up into competing groups or brought under the domination of institutions either of our own or others' devising.

The direction in which medicine is to develop is peculiarly in our hands today. It is no time for lazy indifference or smug complacency but for energetic action and wise planning. Only the pusillanimous would counsel surrender or compromise of principles because they are under attack.

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SOME TRENDS IN MEDICAL ECONOMICS*

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IN the past few decades there has been an increasing tendency on the part of business men to form "trade associations." Joint action in the business field replaces competition in many ways and more effectively where informal sentiments of coöperation are strengthened by formal organization of potential competitors. These trade associations have contributed their share toward uniformity of prices, a phase of business which has an appreciable influence upon competition.

TRADE AND PROFESSIONAL ASSOCIATIONS

In many professions, groups organized for the benefit of both the members and the public, exist. The outstanding difference between trade associations and professional associations must be constantly borne in mind. The purpose of pro-

* From the office of the director of the Bureau of Medical Economics, American Medical Association, Chicago.
* Read before first general meeting of the California Medical Association at the sixty-second annual session, Del Monte, April 24-27, 1933.

fessional association is seldom, if ever, exclusively or avowedly, to form a monopolistic agreement about price. These associations are usually not organized for or considered as business combinations. They do illustrate, however, a connection between public-spirited action and the private interests of their members.

The traditional beliefs and practices with respect to business life are exactly opposite to those with respect to the professions. One may enter business if he has sufficient money or capital with which to build his plant and market his goods, and he may continue in business as long as he can find customers willing to pay him profitable prices for his wares. It is usually contended, in defense of the aforestated attitude, that the consumer is capable of protecting his interests in traffic with business and that competition between business rivals ultimately eliminates the unfit.

WHEREIN THE MEDICAL PROFESSION DIFFERS

But this condition does not obtain in medicine. An individual may have capital enough to provide himself with the most elaborate offices and he may, by various means, be able to find persons who desire advice pertaining to health and disease, but this is not sufficient basis upon which to practice medicine. The medical profession has long recognized its prime object to be the service it can render to humanity. For the protection of the public, it holds that persons setting themselves up as doctors of medicine shall meet minimum standards of preparation and shall observe certain principles of ethical conduct. Recognition of the validity of minimum educational requirements is found in the statutes of the several states and territories regulating the practice of medicine. In the realm of business and commerce, such an arrangement is termed "restraint of trade" and is considered unfair because of the limitation it places upon free competition. In the professions, however, this "restraint of trade" is justified on the premise that it bears an intimate relationship to the public good. Those who deal with human values must, by training and conduct, be competent and dependable, hence the desirability of reasonable checks, standards, and restraints.

GROUP ACTION AND INDIVIDUAL PRACTICE IN MEDICINE

In other respects both the group action and individual conduct of physicians have differed from commercial groups. Inherited from that celebrated Greek physician of Cos, some time during the fifth century, B. C., the principles of ethics of the medical profession have set physicians apart from other groups having purely business, production, or commercial interests. It has been suggested that the medical profession has given too little consideration to some of the business phases of medicine, but by tradition, training, and experience physicians have devoted their lives primarily to human values and scientific advance and only secondarily have they considered monetary values.

To trace the rise of the present unrest over some phases of medical care, although interesting and enlightening, would require too much time for our present discussion; suffice it to say that from many quarters of the platform and press, charges have been made that it is the responsibility of the medical profession to bring forth from the present economic system a plan to provide medical services at greatly reduced cost.

The effect of our increasingly complex social and economic structure upon the practice of medicine has prompted the medical profession only recently to apply accepted methods of economic investigation to the economics of the production and distribution of medical care.

MEANING OF MEDICAL ECONOMICS

Medical economics might be described, if not defined, as that branch of economics that deals with the production, distribution, and consumption of the values involved in medical services. While medicine must function and these services must be produced in the environment largely dominated by industrial conditions, yet the typical set-up of land, labor and capital, with their respective relations to the productive and distributive processes, is practically never found in the normal relations of patients and physicians. The practice of medicine nor, for that matter of any of the professions, does not fit into the picture of general economics.

The work of the physician, lawyer, teacher, does not in any way depend upon adding "utilities" to some sort of raw material. It is not the work of the physician to change the "time, form, or place" of the human bodies with which he works, but rather to restore them to at least a supposedly original condition of health and keep them that way.

When attempt is made to introduce other economic categories into a discussion of medical services the result is only to create confusion. Studies of medical care constantly refer to the "capital investments" of the physician or to the amount of "medical capital" invested in hospitals, laboratories, etc. The subsequent reasoning falls into a mass of confusion, through the effort to carry industrial implications of capital over into the reasoning about medical practice.

THE TERM "CAPITAL"

"Capital," as the term is used in the economics of modern industry, is an investment with the expectation of a financial return, through hiring laborers and organizing and managing a financially profitable industry. Upon this use of the word has been built the elaborate theories of economics, the implications of which can only with great difficulty be disassociated from the word. It naturally follows that most of those who use this term in discussing medicine, instead of avoiding these implications accept them, and reason as if the use of the word necessarily gave these economic theories full validity in the field of medicine.

The existence of office and laboratory equipment, scientific instruments, library, automobile, telephone, etc., in which a modern physician must invest properly to conduct his practice, involves

none of the relations, functions or implications which accompany the ownership of "capital" in the industrial sense. The physician's equipment is intensely personal to him in ownership and operation, whereas it is just the complete absence of any personal relation or ownership between industrial capital and those who use it that is most characteristic of the present system of industry. Nor, as some writers have attempted to show, is the individual practicing physician in the outgrown "household stage" of industry, from which he is inevitably destined to evolve, according to the pattern of industry into the "domestic" and ultimately to the "factory" stage of mass production. He is not "producing" for his own family, nor sending out goods into a market whose inevitable growth to national, or even world extent compels him continuously to expand.

This confusion is increased when the cost of his education is added to the physician's "capital" account. There is logic in insisting that this expense be considered in determining the cost of preparation for the profession and thereby constituting an economic check on the supply of physicians, with whatever effect that will have on incomes. This is something wholly different from classifying such costs as "capital" upon which the current rate of interest must be paid if the "firm" is to continue in business.

PERSONAL CHARACTER OF THE PHYSICIAN'S INVESTMENT

It is the personal character of the physician's investment which is significant. The owner of stocks and bonds usually never sees the property to which he has title. It may be on the other side of the world. He buys or sells it with no effect, other than financial, upon his life.

The physician's investment in education and training is a vital part of his life. Its attainment and possession affords him satisfactions entirely apart from its income producing qualities. He cannot buy or sell it in any market apart from himself. If it is outgrown or rendered "obsolescent" he cannot rid himself of it by "writing it off" some balance sheet. Because it cannot be used by anyone else it lacks the characteristic quality of industrial capital—it cannot compel the labor of others.

The real medical capital, consisting of accumulated knowledge, is stored in the minds, ideals, traditions, and in the publications of the medical profession and is shared freely with the public through universities, journals, discussions, the public press, radio, and individual consultations. This capital cannot be monopolized for profit. It does not fit into the capital concept of industrial economics, yet it is the greatest asset of the profession. Without it all physical capital would be worthless.

MEDICAL EVOLUTION CHARACTERIZED BY DISCOVERIES IN SCIENCE

Alongside of the evolution of the tools with which man has produced goods for the market, of the expansion and complexity of that market and the organization of industry, there has been a corresponding but seldom similar evolution of the medical and other professions. This professional growth is not primarily characterized by the invention and development of ever more complex and labor-saving tools to produce for constantly expanding markets. The dynamic central element in medical evolution, so often traced by medical historians from the code of Hammurabi and the writing of Hippocrates to the present time, is found within the human mind, and expresses itself in scientific discoveries, in new applications of logic to facts discovered through the closer examination of the human body in health, disease, and after death. The significant feature of this evolution has been the steady addition of new found facts, and new explanations of already known facts, to a continually growing body of professional knowledge.

This widening and deepening stream of knowledge has followed no fixed course. It has, unlike industry, established no definite pattern of evolution. Some of the great medical discoveries came through the use of elaborate and extensive equipment. Others, equally great, were the achievement of lone workers with almost no equipment. Many searches for new contributions sacrificed their lives in the struggle.

"PROFESSIONAL KNOWLEDGE CAPITAL"

The dominance of the "professional knowledge capital" is of primary importance in the development of any program of furnishing medical service, including hospital care. Unless this immaterial "capital" maintains its dominance over the physical capital in any such program, the service itself suffers. The physical capital must remain the instrument wielded by the personal skill and knowledge.

Notwithstanding this personal element in the practice of medicine, there are certain commercial organizers and promoters and others who, sensing the universal importance of, and necessity for, medical care and utilizing the popular discussion about the *costs* of medical care are developing mass production schemes out of which they may derive a profit. Most of these schemes are too well known to need any description at this time.

MASS PRODUCTION SCHEMES

It is significant that this attempt to capture and commercialize the professions by the use of mass production methods in the marketing of medical and hospital care should appear just when industry and business are endeavoring to incorporate into their methods some of the characteristics of the professions. At the present moment, efforts to "professionalize business are being directed by trade associations, legislation, and a host of semi-public bodies and interested individuals in an effort to restrain some of the excesses of business.

COSTS OF ADMINISTRATION

The claims of organizers and promoters that only those trained in commercial organization and promotion can efficiently and economically market

medical service under these new proposals is entirely unconvincing when one examines similar endeavors abroad. In England there are today between 5,000,000 and 6,000,000 contributors to voluntary hospitalization plans. The cost of administration in these plans varies from 3 to 10 per cent. There are no paid high pressure salesmen who depend upon volume clever sales talks, misrepresentation, underbidding, and perhaps coercion in some instances, for their commissions. Nor is it by any means impossible to cite instances in the United States in which civic and relief projects are being maintained with creditable success by thousands of individuals whose primary motive is not personal financial gain.

The motive which underlies a project is one factor which often insures success or failure. It has never been shown that the introduction of commercialism in medicine accomplishes the highest ideals of the medical profession. On the other hand, commercialism usually means a deterioration of medical services and a disruption of the medical profession; either of these results are inimical to the best interests of the public.

THE CONTROL OF THE PRACTICE OF MEDICINE

Wherever the control of the practice of medicine has been wrested from the medical profession, it is found that either the public or the profession or both are dissatisfied with the result. Conversely, it is found that in those countries where the medical profession retains control of the practice of medicine both the public and the medical profession seem to be satisfied.

WHO ARE THE PROPONENTS OF THE MEDICAL REVOLUTION?

In the mad rush to provide a new method of administering medical care there seems to be an almost entire absence of demand from the working classes for this medical revolution. The worker has for years declared that were he given an adequate living wage he would be able to provide his own needs and services. Most of the schemes proposed by these commercial organizers and promoters, ostensibly for the benefit of the low income group but likewise equally important for the promoter's own selfish monetary advancement, depend upon the small regular payments from this low income group for their success. It should be clear, therefore, that it is the less fortunate class for the most part that is being called upon to contribute the 20 to 75 per cent overhead cost of underwriting administration and profits. Obviously, if 20 to 75 per cent of the poor man's dollar goes for administration and the profits of the money-greedy promoters, this same dollar cannot buy but 25 to 80 per cent of the medical service for the poor man that his money ought to buy. This surely is an economically unsound method of reducing the costs of medical care to the low income groups.

Not only is the person of low income thus deprived of the full value of his dollar, but the medical profession and the hospitals share, to a correspondingly lessened degree, in the available funds collected by these commercial promoters to pay for their services. It should be clear, then, that it is the low income group, the medical profession, and the hospitals that contribute handsomely to the support of these artificial and parasitic medical schemes.

WHAT ANALYSIS OF SOME OF THE PLANS SHOWS

An analysis of the numerous proposals and operating schemes indicates that in most cases the economic principles which apply to the practice of medicine have been wholly disregarded. For example: (1) These commercial conjurers are not concerned over the fact that as the commercial interests secure an increasingly larger portion of the medical market, using only a comparatively small number of physicians to do their work, it becomes increasingly difficult for the physicians in independent private practice to secure enough patients to maintain themselves respectably. Furthermore it will become almost impossible for recent graduates in medicine to establish themselves in practice at all. (2) The disappearance of professional control is of no importance to the promoter; in fact, his scheme is often specifically designed to transfer such control from medical to lay groups. (3) Since he has no understanding of medical traditions, ethics or science, the commercial promoter is unprepared to appreciate quality of medical service, therefore the quality of the medical care, and in some instances the quantity, is reduced to conserve his, the promoter's, funds, since competent medical personnel cost him more than a less competent staff.

WHAT SHALL BE THE NUMBER OF PHYSICIANS

A further problem lies in the fact that, as the number of physicians in the United States increases, professional competition will become more keen. It cannot be stated just what number of physicians will represent the saturation point for physicians' services. Communities vary in their requirements, but with modern conveniences and equipment the same number of physicians are able to serve more people now than ever before. If professional competition is to be prevented from becoming destructive, two alternatives are open—either the number of new physicians licensed annually must be brought more closely to equal the annual loss by death and retirement, or the medical profession must develop greatly, unused fields of preclinical medicine. Certainly economic relief and professional independence for the medical profession cannot be assured by the acceptance of lay promoted commercial schemes.

ECONOMIC QUACKERY

The quack in medical economics sees in every scheme either a panacea or a poison. The scientist studies each new plan as he does a new practice or a new drug to determine its helpful and/or harmful features and how it can be utilized in existing practices and pharmacopeias.

The correct diagnosis and treatment of a medical economic problem should proceed along the same general lines in economics as in medicine. Social problems are often more complex and require no less research than those of other fields, and economics, no more than medicine, can prescribe a panacea for every disease it can diagnose.

It is three hundred years since Galileo originated the experimental scientific method of acquiring knowledge, and whole fields of thought and action still go on as if he had never lived. Economics and politics are only just beginning to follow scientific methods. But during that period of three hundred years even the very limited application of that method has added more to human knowledge and human progress than all the centuries of dogmatic rationalization.

Economic quackery in its relation to medicine flourishes best during periods of social and economic stress. During such periods the tendency to establish unsound and dangerous methods of administering medical care is greatest. It should be obvious, therefore, that all proposals to change medical practice during troublesome times must be subjected to the most searching examination in order that the time-proved principles of medicine shall not be destroyed.

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ANTIVIVISECTION *

By CHESTER ROWELL, LL. D.
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I

THE usual antivivisection bill has been introduced in the legislature, this time under the sponsorship (presumably "by request") of Senator Roy Fellom of San Francisco. It would, the dispatches say, "forbid universities, research laboratories and experimental stations from using animals for experiments or demonstrations of any kind."

This is the regular biennial attack, ostensibly on "cruelty," but actually on science. It has never passed the legislature and would be vetoed if it did. Even the periodic efforts to pass it by initiative have met with decisive defeat. Nevertheless, because the opponents of science are persistent, its defenders must be vigilant.

That the real opposition is to science rather than to "cruelty" is shown by the fact that these bills always authorize the infliction of pain on animals for other purposes, but prohibit scientific experiments even without pain. They all permit branding, dehorning, spaying and gelding on farms, without anesthetic, but forbid opening the vein of a mouse or a guinea pig in the laboratory, even under anesthesia. Most of them would prohibit feeding one rat on wheat and another on corn, to study the comparative processes of digestion. They permit the slaughtering of cattle for food and the poisoning of squirrels for protection, but they would forbid a pin-prick in a rabbit to measure the dose of insulin to save a human life.

The "cruelty" part of the crusade is simply untrue. If the torture tales of current antivivisection pamphlets were correct, then every university president in the United States, every dean of every medical school and every doctor you personally know would be a liar. These are the men to whom we have entrusted the guidance of our youth and the safeguarding of our lives. If they were men who would solemnly lie to the world, on a matter of which they have personal knowledge and cannot be honestly mistaken, that would be worse than the "tortures" of which they are accused. Better close our colleges than have our sons and daughters corrupted by such men, and better die untreated than permit ourselves to be operated on by a surgeon who would lie about an operation on a dog. Instead, these are the very men whom we trust above all others.

The antiscience attack is the more insidious because fewer people are equipped to check its statements. The allegation is that animal experiments have added nothing to human knowledge, anyway. But careful reading will usually disclose that the real meaning is that there is no such knowledge to add to. It is impossible to deny that animal experiments discovered antitoxin and insulin, but it is possible to question whether these were worth discovering. Nobody who knows the facts, to be sure, does question it; but there are many who do not know the facts. It is possible to think that it is right to make soup of the flesh of slaughtered cattle, but wicked to make adrenalin of their glands. Absurd as it seems, some persons do think just that.

So let us get two things straight:

First, "vivisection" is not torture.

Very few laboratory experiments involve cutting, and these are done under an anesthetic, whenever it would be used in operations on human beings. This writer has had done to himself, with and without an anesthetic, practically every surgical thing that is done to animals in laboratories—the last one five minutes before this paragraph was written. And we have all inflicted on rats, to get rid of them, worse suffering than they ever undergo in laboratories.

Most laboratory experiments are medical, not surgical, and involve no more discomfort to the animals than the same diseases do to men. If one sick rabbit will save a thousand sick babies, is not that worth while?

And, second, the real opposition is to science. In a democracy men have that right. A man need not believe that quinin kills malaria or that vaccination prevents smallpox. He may even think that strychnin is not poison. But he must not, on that belief, administer it to others. Neither should he have the power, because he does not know that antitoxin cures diphtheria, to forbid the pin-pricks in horses and guinea pigs, required for production of antitoxin and the measurement of its dosage.

The democratic right not to know the truth does not alter the fact that it is the truth. The laws of nature still operate, whether you "believe in" them or not. Nobody who recognizes the existence of medical knowledge doubts that animal ex-

* Reprinted from the "World Comment" column of the San Francisco *Chronicle*, March 9, 1933.

* See also editorial comment in this issue, page 379.

perimentation has contributed enormously to it. To prohibit the use of animals in the Wassermann test for syphilis would be like prohibiting the use of the microscope in examining water for typhoid. Men do have syphilis and water does carry typhoid, even if there are those who choose not to believe it.

The fact is that medical research, mostly on animals, has already banished from the earth most of the plagues that once afflicted mankind and is on the way to control the others. Even George Washington and Louis XIV were pockmarked with smallpox. Now almost nobody has it. We no longer fear cholera, typhus, bubonic plague, or yellow fever. Malaria is under control; diphtheria preventable and curable; typhoid fever possible only by neglect; and most of the other contagious diseases dwindling. Tuberculosis is understood and has become a minor factor in the death rate. Influenza is still a mystery and cancer baffles us. Some thousands of white mice are now being used in investigations to unlock its secret. Shall we make this pursuit of knowledge a crime?

* * *

II*

This is more about "vivisection."

Senator Roy Fellom and numerous others write to explain that a bill recently criticized in this column is not against vivisection generally, but merely forbids the sale of condemned dogs from the pound for that purpose. The information that the bill was general came from an Associated Press dispatch from Sacramento, and the arguments then made are still good against such a bill and the perennial agitation for it. Only a part of them would apply to this separate dog pound bill. They do hold, however, against the motives of most of its supporters, whose letters show that their real opposition is to vivisection generally. They are interested in this bill as a first step.

For the dog pound bill separately, if it were separate—as it is in the minds of a few, but not of most of its advocates—there are arguments which, though not conclusive, are sincere and practical. But even these would have no force if it were not for the lurid fictions circulated by the antivivisectionists. If people knew what happens to dogs in laboratories, the humane work of the pounds in taking up stray, disabled and unwanted dogs would not be hampered by the figment of their possible "torture." It is no worse for a dog to be chloroformed in the laboratory than to be cyanided in the pound. Either fate is a mercy to the only dogs on which it is imposed. And even to meet this point no law is necessary, since any pound which finds itself handicapped by it can meet it by a rule of its own.

It cannot be too much emphasized that the first question of this whole issue is one of fact. If the things described in the antivivisection pamphlets do happen, they ought to be stopped. If the men who, of their own knowledge, say that they do not happen are liars they ought to be ejected in disgrace from their present positions in charge of the education of the youth of the country and the training of those who are to guard its health. The scientific aspects of the problem may be arguable (though no scientist does argue them), but the question of fact is not. These things are or are not facts, and the charge that they are facts is capable of proof or disproof by evidence. Until there is agreement that these torture tales are or are not true there is no basis of fact on which to conduct the rest of the argument.

The evidence that they are not true comes from absolutely every person who has first-hand knowledge, and whose word would be taken as conclusive on any other subject. These are the men to whom we entrust our lives and the mental and moral integrity of our children. They are authorized by law to administer poisons, to cut up living human beings, and to determine upon what knowledge and precepts the coming generation shall enter responsible life. They attend us in birth and ease us in death, and are entrusted, all our lives, with a responsibility and a confidence which we would grant to few other men. On any other question their word would be unhesitatingly accepted. And they say, on their honor, and on personal observation, that these things are not true.

The evidence on the other side is nearly all unverified and second-hand, presented by those who do not personally know whether it is true or false. Try it out yourself. Ask whichever physician you personally know to be an honorable gentleman, whose word you would take on any other subject, what he has personally seen in laboratories. Ask any antivivisection circulator of pamphlets which of the things in that literature he or she has personally seen. The answer, of course, will be "none." Read the literature itself, not on its science or antiscience, but on its sheer allegations of fact. Eliminate outright any quotation which does not state from what book it is taken, giving page and date of publication. No quotation which omits these verificatory details is worthy of credence. Actual study of many such quotations shows that the words "under complete anesthesia" have been deliberately omitted from them. Where these data are given, look them up in the original book. You will be surprised.

Examining the evidence in this way, nine-tenths of it simply disappears. What is left?

A few things. Cutting in the brain is done without anesthetic, for the same reason as cutting hair or fingernails. Hypodermic injections and vein punctures are done without anesthetic, on animals as on humans, because they hurt less than the anesthetic itself. There are authentic accounts of horribly painful experiments, in the days when human surgery had also to be done without the then unknown mercy of anesthesia. And there are a very few investigations—so rare that most men who have spent their whole lives in laboratories have never seen them—that have to be conducted painfully, on conscious animals. Such pain is inflicted a million times on farms to once in laboratories, and can be done in no laboratory without the express permission (almost never asked or

* From the San Francisco *Chronicle*, March 24, 1933.

given) of the dean. And there is the direct testimony of a few discharged laboratory workers that the doctors are liars. Evidently somebody is. There is unanimous agreement that nearly all the experiments are medical and dietary; not surgical. The surgical ones are done under the same precautions as on humans.

These are questions of physical fact, capable of ascertainment. Until they are agreed on, there is nothing to discuss on the scientific or human side. Why argue whether it is useful or ethical to "torture" animals, unless in fact they are tortured?

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DEHYDRATION IN HEAT EXHAUSTION AND IN FATIGUE

By C. VAN ZWALENBURG, M. D.
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THE need of an adequate supply of water for the physical well-being of the body is being more and more appreciated during the last few years. The work of Roundtree [1] and of Newburgh [2] have added greatly to our knowledge of what has been called the "water balance." Evidently the most important phase of the balance is to keep the body adequately supplied with water, as an ordinary oversupply is easily taken care of by the automatically increased urinary output. The promptness of this response is common knowledge among beer drinkers and should be more frequently acted upon when we look for a diuretic.

WATER THE GREAT DIURETIC

Water has only recently demonstrated its prime position as the greatest diuretic we have ever had. It is only lately that we have recognized the fact that most bladder irritations, scalding and burning at micturition are due to a lack of volume in the urinary output. During the hot weather scores of patients go to the doctor with these irritations. That they are due to urinary concentration on account of low water balance is demonstrated by the promptness with which they disappear when the patient takes an adequate supply of water. This fact seems almost too obvious to have been missed so long.

How many centuries of wasted diuretics have we been guilty of and how very recent is the knowledge that water is the supreme and practically the only real diuretic. Should not every layman, much more every doctor, know that one cannot get water out of a body without putting it in? How many dollars have found their way to the doctors' pockets because of scalding, irritating urination, when summer heat dehydrates the body and people fail to heed the automatic call for more water? Many of these patients have been given soothing diuretics and nostrums without number. The bladder has been washed, cystoscoped, probed, and treated. Up to ten pounds of water is lost by perspiration in one day. How many persons realize that pounds of water must be taken to replenish these amounts? Think of two to three quarts of water intake and less than a pint of kidney output in one day on the desert.

It is generally recognized that the circulation is much more comfortable and efficient when the blood vessels are well filled. Starling's [3] law of the heart for the greater efficiency of the stretched heart muscle over a full cavity has had its accuracy demonstrated in many observations and studies. As a farmer said to me the other day, "I drink plenty of water because I think the heart will do better work when it has something to work upon." "The blood volume must be maintained" has become a slogan in all departments of medicine.

The most obvious instances of loss of volume have received exhaustive study during the last few years. Hemorrhage and shock from injury probably take first place. Surgeons have recognized the need of water here and have developed a very efficient method of replenishing the supply with transfusions and with intravenous and subcutaneous injections. In these conditions the relative amount of fluid volume is more easily evaluated, although here and elsewhere it would be a tremendous boon to have a simple and reliable method of estimating the actual amount of fluid volume present in our patients at any one time.

The lack of blood volume following diarrhea, cholera, and other depleting diseases is receiving attention. We are also beginning to study the problem of an adequate intake of water generally—in health and in disease. More and more we are urging our patients to drink freely. Still more emphasis should be placed upon this advice.

This paper hopes to create more interest in the third major avenue for the escape of water from the body—the skin. Transpiration, perspiration, and evaporation are the great unnoticed causes of dehydration.

TRANSPIRATION

This is the greatest factor in the control of water balance and is of paramount interest in the study of heat exhaustion and fatigue. The accompanying table furnishes a picture of the average of intake and output in maintaining the water balance in the body.

TABLE 1.—*Water Balance**

Water Intake	*Grams*
Drinking water	300
In coffee, milk and soup	580
In solid food	720
From oxidation of 100 grams of protein	41
From oxidation of 100 grams of fat	118
From oxidation of 244 grams of carbohydrate	135
	1894
Water Output	
In urine	750
In feces	300
Vaporized through skin and respiratory tract	700
	1750

* From Du Bois.[4]

Note that the amount vaporized is practically equal to the output from the kidneys. It takes no longer than one day on the hot desert to demonstrate that the water vaporized through the skin and respiratory tract will become several times the amount of urine excreted. This becomes evident when studying the enormous amounts lost by

perspiration in hot industrial plants, among the stokers of coal-burning vessels, in hot mines, in fact in any occupation which calls for excessive muscular exercise.

STORAGE RESERVOIR

Approximately 75 per cent of the body weight is water.[1] A large part of this volume is held in the tissues, which act as a storage reservoir. The intercellular spaces, as well as the cells of the body, constitute this reservoir. This is the supply called upon promptly in hemorrhage, excessive perspiration, and the ordinary needs of the body. In ordinary surgical shock much of the fluid volume of the blood, instead of simply concentrating in the large veins, also escapes into this reservoir and for some reason fails to make its usual return into the blood vessels when needed.[1, 5] One of our problems is to keep this storage reservoir filled.

CONTROL OF TEMPERATURE

In the regulation of the temperature of the body the most important factor is the water balance. Normally this goes on automatically and the loss of water is supplied through the sense of thirst, which calls for more water when the supply runs low. This automatic response to the sense of thirst normally suffices to fill the storage reservoir throughout normal animal life. However, it does become necessary often in the treatment of disease to supplement artificially the amount of water intake to maintain an adequate supply. The sense of thirst is sometimes insufficient or may be ignored, or there may be inability to secure water, to drink it, or retain it.

The normal metabolism of the body—the combustion of food substances by the oxygen taken in—constantly produces heat in the body,[6] and when we remember that the normal temperature of the body is 98½ degrees Fahrenheit it becomes obvious that very adequate mechanism is required to regulate the amount of heat produced and the amount of heat lost. This process is looked upon as very complicated, but many of the factors are very simple, the most important one being the control of the circulation in the skin. Cold contracts and heat dilates. Vasomotor control and heat-regulating apparatus have been sought for and found in the medulla, but the principal ordinary control is the direct effect of heat upon the skin. Heat causes dilation of the blood vessels and cold causes contraction, thus regulating the loss of heat.[7, 8]

HEAT LOSS

Heat is lost from the body by direct radiation, convection, conduction, and evaporation; but in the presence of excessive heat the greatest dependence is upon evaporation from the lungs and skin. Smith[9] found that under average conditions the heat loss by radiation, conduction, and convection from the skin is two or three times the amount lost by evaporation. Wiley and Newburgh[2] found that under conditions of high temperatures the amount lost by evaporation with sweating is very much more, and, obviously, is often enormous.

EVAPORATION

All investigators emphasize the fact that, in the final analysis, lowering of body temperature in excessive heat is dependent upon the evaporation of water from its surface. Water passing from a liquid to a gas (vapor) takes up heat from its environment. Thus heat is taken from the body, thereby cooling it.[5] It is the same process which cools water in the Spanish olla. The dry desert wind, passing over the moist porous jar, evaporates water from its walls, and the heat of evaporation coming from the jar and its contents cools the water in it.

Haldane[10] says: "Evaporation permits the body to tolerate temperatures which would otherwise be totally incompatible with life." In the absence of evaporation, he places the upper limit of safety at 88 degrees Fahrenheit if at rest; at 78 degrees Fahrenheit if working in still atmosphere. Above these temperatures some evaporation is essential. When the environmental temperature reaches blood heat, evaporation must play the sole rôle of stabilization.

HUMIDITY

A high humidity of the surrounding air adds greatly to the difficulty of keeping cool on account of the lack of evaporation. Heat exhaustion on the desert is relatively rare because of the speed of evaporation in the dry air. A combination of high temperature and high humidity may bring on profuse perspiration; but there being no evaporation a rapid depletion of fluid takes place without adequate cooling.[10, 11, 12, 13] A 100 per cent humidity with 100 degrees temperature could be endured but a very short time because there could be no cooling since there could be no evaporation. Something approaching this must have been the condition in Peking in 1743, when eleven thousand are said to have died in one week.

LOWER BLOOD PRESSURE

After exercise blood pressure rises to meet the call for the support of muscular activity and heat dissipation by evaporation; but when the stage of exhaustion is reached, inadequate blood volume and failure to respond to this call results in a fall in blood pressure: thus, 118 to 96, 110 to 92, 116 to 80.[9, 11, 14, 15, 16, 17, 18]

PERSPIRATION—WATER LOSS

The loss of heat being so largely the result of evaporation, the amount of water lost by prespiration keeps pace with the need of lowering the temperature of the body, and an estimate of the amount of water lost by sweat becomes significant. Many careful estimates have been made, and the amounts are often enormous. Haldane[10] reports the following from an account by Dr. A. E. Boycott on visiting mines in England: "As you know, the men are reported to wet the drill holes by pouring the sweat out of their boots." The amounts recorded under various conditions of temperature and humidity range from one liter an hour in extreme conditions to forty grams per hour in ordinary room temperature.[4, 6, 16, 19, 20, 21, 22, 23]

CHLORID LOSS

With profuse perspiration there is excessive loss of chlorids which are so necessary in the metabolism of the body.[9, 23, 24] This problem has had careful study, and the necessity of replenishing these chlorids in all forms of dehydration has been properly emphasized.

MECHANICS OF EXHAUSTION

The obvious result of this excessive loss of water is to lower mechanically the blood volume, producing a condition almost identical to that following hemorrhage or surgical shock. The sense of exhaustion is due to the difficulty of the circulation maintaining an adequate blood pressure in the nerve centers. We know that unconsciousness follows a sufficient drop in blood pressure. The sense of well-being depends upon constant blood pressure. Exhaustion is one of the first evidences of loss of blood, faintness, deprivation of food and drink, and shock, inadequate volume in the blood vessels. Fatigue for the same reason is in large part a sense of this approaching exhaustion from lack of fluid in the blood vessels. As a demonstration that this loss of water is the cause of fatigue and a sense of exhaustion, I have with great satisfaction made the following simple test. After excessive perspiration following eighteen holes of golf on a hot day or a strenuous two or three hours in the operating room, I have repeatedly taken a couple of glasses of water, reclined on a couch for ten minutes until the water was absorbed and have then been able to slip into the continued duties of the day, feeling entirely rejuvenated and fit to go on. The fatigue is overcome by the simple process of filling the blood vessels after the supply there and in the storage reservoir has run low.

CYANOSIS

During the later stages of heat exhaustion there is usually cyanosis, which often persists after death. During an aggravated heat spell in New York in which the victims were too numerous for the beds in the New York Hospital, deaths were so numerous that funerals were delayed, and a large number of corpses accumulated.[25] A casual look by a visitor brought the report, "Why, they are all negroes." It was the cyanosis which persisted postmortem.

It may have been this same period of severe heat of which Lambert[26] writes: "The unconscious patients presented a striking picture. Their skins were dry, hot, and flushed; or cool, pale, and livid; or cyanotic, with a clammy perspiration. Many with a temperature of 108 degrees Fahrenheit did not regain consciousness at all, and though the temperature came down the pulse remained frequent, dyspnea and cyanosis often being marked, and such finally died."

The cyanosis and the flush of dilated blood vessels on the surface have misled us into thinking that the flagging heart was laboring against a plethora of blood and we have resorted to bleeding. Osler's "Practice of Medicine,"[27] says the life of S. Weir Mitchell was saved from this condition by bleeding. As a matter of fact, just the opposite is true. The heart is laboring with empty arteries, for all the blood is attracted to the dilated capillaries and veins on the surface of the body by the normal process of cooling by perspiration and evaporation. Not enough remains in the deeper arteries and veins to maintain adequate blood pressure. The blood volume has been lost through the skin. The depleted supply is still being used for the desperate need of cooling the body from the heat which is destroying it. Again I say what a boon it would be to have a satisfactory method by which to measure blood volume in the body. Introduce 1,000 to 2,000 cubic centimeters of normal saline or 5 per cent dextrose into the veins and see how promptly the perfectly normal heart takes up its work.

PATHOLOGY

The pathology of heat exhaustion is that of dehydration. Wall and Wakefield:[28] "The major change was rigid contraction of the left ventricle, and venous congestion of all the veins in the body." Prudden and Delafield[29] refer to H. C. Wood, Jr., calling attention to the rigid condition of the wall of the heart. Osler and McCrae:[27] "The arteries seem to empty themselves and send the blood to the periphery."

CASE REPORTS

The following cases illustrate exhaustion as the result of dehydration.

CASE 1.—I attended O. L. about 1922 after he had been relieved from the Navy, where he was serving as a cadet at Annapolis. He was a young man, aged 20, near the close of his first year at Annapolis, making his first cruise which took him from Baltimore to Honolulu. He writes as follows:

"In thinking over what happened to me, in the light of this idea (dehydration), the following recollections may interest you. The cruise was from Annapolis to Honolulu. I was assigned to the engine room from Annapolis to Panama, and to the boiler room from Panama to Honolulu. The temperature in both rooms was high, and got higher as we reached the tropics; moreover, the boiler room was under a forced draught. I should guess that the temperature there was between 120 and 130 degrees Fahrenheit. There was little physical exertion in the engine room, but in the boiler room I was working as a coal passer, which meant lugging cans full of coal from the bunkers to the furnace door. These cans were about the size of a large ash can. As I recollect, the first stage of the trip brought us little serious discomfort aside from mild seasickness. However, the water they gave us was distilled water, and I remember getting very sick of it. It tasted heavy and flat, and although I wanted to drink it, toward the end of the trip it began to nauseate me. Therefore, for several days prior to reaching Panama, I probably did not drink enough water. However, I felt well enough, and spent one day on shore leave at Panama. I remember a craving for fruit, and that I ate nearly a whole pineapple.

"After leaving Panama I lasted three or four days in the boiler room before I finally collapsed. I remember that my feeling toward the water increased in violence during this time. I craved a lot of it, yet I hated the stuff because it tasted so flat. My stomach was so upset that I ate very little food. I do not remember any specific craving for salt at the table.

"After I finally collapsed they assumed that I had influenza, presumably because of a high fever. However, there was no attempt to give me more water. In fact, I think I got even less than usual, perhaps only two or three glasses a day. I remember that for

breakfast and supper they always gave me a cup of cocoa. I had a craving for orange juice or fruit juice of any sort, but there was none available. It certainly looks as if dehydration and lack of a proper salt balance were factors in the case."

* * *

CASE 2.—W. G. F., aged 67, collapsed from heat exhaustion in August, 1931, after a morning spent walking many miles through his orange grove in a temperature approximating 115 to 120 degrees Fahrenheit. He was unconscious, pulseless, cyanotic, and breathing heavily. When I saw him at the hospital twenty minutes later, his consciousness had partially returned. His pulse was very feeble, rate 50, blood pressure, systolic 96, and diastolic 60. He was immediately given intravenous injection of 1,000 cubic centimeters of a 5 per cent dextrose solution. This brought about a very prompt reaction, so that within one-half hour he was in a fairly normal condition. He took water by mouth very freely thereafter, and by morning, seventeen hours from onset, the total taken was 3,640 cubic centimeters plus the 1,000 cubic centimeters given intravenously, a total of 4,640 cubic centimeters of fluid. During all this time there was an output of urine totaling 450 cubic centimeters, showing the tremendous depletion of his storage reservoir. His total excess of intake over output must have approximated the total blood volume in his body. He continued to improve very rapidly, and was able to leave the hospital forty-eight hours after admittance, practically well, and has remained so.[30]

This is the patient whose condition instantly suggested dehydration with the obvious treatment. This case was reported in the *Journal of the American Medical Association*, 1931.[30] After careful search I failed to find the record of a similar use of this method by anyone before.

* * *

CASE 3.—Dr. J. C. King, former president of the California Medical Association, writes: "Many years ago the Southern Pacific Company ordered new rails laid across the desert, in July and August. Soon cases of sunstroke appeared. I cared for as many as a dozen in one twenty-four hours. The camps were supplied with a tank car of water from Indio, one each week. The water would be subject to a temperature from 120 to 140 degrees Fahrenheit each day. It soon became rotten and unpotable. I ordered a car of water to each camp each day. The foreman refused to obey the order. I appealed to the superintendent in Los Angeles, but he claimed no authority. I carried the same to San Francisco, and then to New York before I could obtain what I wished. As soon as fresh water was supplied daily, the cases of heat prostration diminished and, in about a week, ceased. The foremen were supplied with ice and used water freely. The laborers were not given ice and used water sparingly because it was so nasty."

TREATMENT

In the face of all this evidence of dehydration the treatment of heat exhaustion in any of its various forms, and of the preliminary fatigue as a result of dehydration, obviously consists in the administration of water. Fortunately the apparatus is now available in practically all hospitals, and the methods are well developed to administer water hypodermically and intravenously in the urgent cases. One thousand cubic centimeters of saline solution or five per cent dextrose intravenously is the prime indication in the really depleted patient. The method is the same as that used to overcome surgical shock and needs no detailed discussion. The *American Journal of Surgery*[31] gives an excellent summary of various methods. As soon as the patient is able, copious drafts of water should be given.[17]

As a preventive measure, we must constantly urge more water—drink more.

Industrial plants are giving considerable attention and health authorities are pushing the campaign to supply an adequate, wholesome, palatable, and convenient supply of water. From the standpoint of heat exhaustion, fatigue, and shock, it would be hard to overestimate the importance of this movement. Various amounts have been recommended, but for the average individual under moderate strain of mental and physical exercise, six or eight glasses per day is ordinarily needed. Under conditions of extreme heat such as encountered by workers in steel mills, foundries, hot mines, or in the holds of coal-burning vessels, two or three times more is required. The experience of Hunt[32] in India in desert conditions would indicate an amount up to thirteen liters as desirable. He says that the common consumption of water in India is thirteen liters a day.

CONCLUSIONS

1. We have reviewed the literature carrying the growing accumulation of evidence that dehydration is the important factor in heat exhaustion, and have illustrated the application of this principle.

2. The study of fatigue shows that dehydration is a large factor, especially in the face of copious perspiration.

3. In acute heat prostration, intravenous use of water, saline or dextrose, is a life-saving procedure.

4. An abundant, convenient, and palatable supply of water should be a first concern for all workers in hot, humid environment, brain workers as well as muscle workers.

5. Most people need the advice: Drink more water.

Glenwood Block.

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FOCAL INFECTIONS*

IN RELATION TO CARDIAC AND VASCULAR DISEASE

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DISCUSSION *by William J. Kerr, M. D., San Francisco; Charles Miner Cooper, M. D., San Francisco; Fletcher B. Taylor, M. D., Oakland.*

THE purpose of this paper is to draw perhaps more forcibly to your minds facts long since known and to make, at the same time, a plea for more thorough and intelligent handling of focal infections which may be of the greatest consequence to the patient's future well-being. The impression which I get in reading a number of the more recent books on heart and vascular diseases is of the rather casual way in which the relationship of focal infections is treated by the authors, though they mention quite commonly that such relationship exists.

* Read before the Alameda County Medical Association, January 16, 1933.

CAUSATIVE ORGANISMS IN ENDOCARDITIS

Thayer, in 1925, from a study of 199 cases of acute and subacute bacterial endocarditis, supported by 138 autopsies, gives the following causative organisms:

	PER CENT		PER CENT
Streptococcus	57	Gonococcus	11
Pneumococcus	14	Influenza	4
Staphylococcus	13	Staphylococcus albus	1

In acute pericardial disease, Preble reported 244 cases divided as follows:

	PER CENT		PER CENT
Pneumonia	34	Sepsis	4.7
Rheumatic fever	28.4	Typhoid	1.7
Nephritis	11		

He does not mention the cause of the nephritis, probably mostly secondary to infection elsewhere. Rheumatic fever is coming to be rather generally accepted as due to a streptococcus; so that, if we eliminate pneumonia and typhoid, sepsis, rheumatic fever and nephritis furnish 64.3 per cent of his total.

White states that infectious aortitis, besides that due to syphilis, is also occasionally found as an acute lesion in rheumatic fever, typhoid, and tuberculosis; and further states that endarteritis may result from the same group of infections mentioned in Thayer's table.

He also says that in the treatment of aortic disease there is no effective treatment for atheroma, but "avoidance of overexertion and overeating and *protection against infection are advisable.*"

Speaking of the treatment of angina, the same author states: "Finally, there may be some special disease like syphilitic aortitis or *a focal infection,* the treatment of which results in abolition, at least for the time being, of the angina pectoris. Such trouble should be looked for and treated, but excessive zeal in therapy is to be avoided; too much surgery or medicine or tooth-pulling may do much more harm than good."

FOCAL INFECTIONS IN RELATION TO MYOCARDIAL DISEASE

In discussing focal infections in relation to myocardial disease in particular, White and others take the stand that they may aggravate already existing heart disease, and that such conditions as chronic cholecystitis, prostatitis, pyelitis, infection of gums, apical abscesses of teeth, sinusitis, etc., appear to be responsible for relatively unimportant disorders of cardiac rhythm, in particular extrasystoles of premature beats. White states that measures looking toward the elimination of such foci "are usually justifiable (if the circulatory condition permits) and may relieve the patient of his temporary state of ill health, or at least cause improvement." He warns against removing more than a few infected teeth at one sitting, and concludes that "the wisest course, then, is to view focal infections, so far as the heart is concerned, neither with overmuch fear nor with excessive disregard, etc." All of which leaves us with a very indifferent attitude toward the problem and its importance.

I grant that I have not seen any brilliant cures of bacterial acute endocarditis as the result of the

elimination of focal infections. Of the subacute variety, on the other hand, a number of instances have come under my observation which apparently did result in cure of the infectious process, with good heart function, though of course valvular defects persisted. I have further seen angina, in one case at least, disappear, not to return as yet over a period of four years following a tonsillectomy in an edentulous individual; and another patient has now been free for about seven months as the result of cleaning up infected teeth. I have often seen not only extrasystoles but really marked arrhythmias cease after removal of focal infections and a definite improvement in myocardial damage of long standing.

If focal infections can be responsible for arthritis, or myositis or neuritis, for cholecystitis, pancreatitis, etc., I can see no reason why the myocardium, endocardium, or pericardium should be exempt or why the vasa vasora of the greater vessels should not be the ultimate destination of infectious emboli, resulting in a scarification of vessel walls, particularly the media, with resultant loss of elasticity or arteriosclerosis.

FOCAL INFECTIONS AND OLD AGE

In fact, my conception of old age is largely a matter of the degree of focal infection which a given individual has harbored during his lifetime. Premature old age means many focal infections in many instances. I am not unmindful of the effect of dysfunction of the glands of internal secretion, but I question if they, too, have not often been the seat of secondary or metastatic infections, just as one may see an acute thyroiditis following a streptococcic throat and, on recovery, find his patient ultimately with a deficient thyroid.

NATURE OF INFLAMMATION

Inflammation is the same in every tissue of the body. First, the lodgment of the irritant, followed by congestion of the vessels with accumulation of leukocytes and the ultimate breaking down or organization into scar tissue. Rubor, calor, tumor, and dolor are still the cardinal symptoms. Place it where you will, the results in any given location are dependent only upon the physiologic function of the part involved and the degree of impairment resulting from the inflammation.

WHERE ORIGINAL FOCI ARE FOUND

Original foci are, probably as much as 90 per cent, to be found in the head: teeth, gums, tonsils, and sinuses. The surgery of tonsils is simple in that it undertakes at once to remove completely the diseased tissue. The treatment of sinusitis is not so simple. If the antra alone are the seat of chronic infection, probably the results are best, for the thorough removal of the infected mucosa is possible. With ethmoidal, sphenoidal or frontal involvement, the problem becomes extremely complicated and, perhaps, the most one can look forward to is good drainage to prevent absorption. And if good drainage is established the use of vaccines, etc., offers the possibility of at least desensitizing and, perhaps, immunizing the patient.

With infected teeth, the opportunity to eliminate completely the given focus is as brilliant as in the case of tonsils; but there is much to be said about the method, for the average extraction of an infected tooth is about the most unsurgical procedure that we meet with in the daily round. I make this statement not in unfriendly criticism but only to call attention to the fact, and to solicit the coöperation of the dentists in properly removing a focus of this type.

A periapical abscess is nothing more nor less than an osteomyelitis of the jaw bone, and its surgical treatment should be the same as that of an osteomyelitis of the tibia or femur or any other bone. What surgeon would dare to open up the tibia, curette, and then calmly stitch up the overlying tissues or even to tightly pack the curetted pocket? Yet this is common practice in dental surgery. Obviously the procedure makes for a retention of infection, an incarceration of bacteria which may be as bad as the original periapical abscess or even worse. This happens so frequently that it has led to the coining of the term "residual infection," an admission of the incompleteness of eradication of the infected area. And let me say in passing that the search for a focus of infection should never fail to include the edentulous portions of the jaws.

The only fair and just estimate of the value of removing a focus of infection is actually and thoroughly to remove the seeding focus. To remove a tooth involved with periapical disease and then sew the gums together, or even permit an early plugging up of the socket with an organized clot, is only half doing the job. This clot should be removed daily and the socket irrigated with hypertonic saline or Ringer's solution for a period of several weeks, depending on the extent of the osteomyelitic process, but in no event less than three weeks. Granulations springing from the gums should be removed in order to avoid incarcerating the infection, and only when the socket ceases to be sensitive to instrumentation, should it be allowed to fill in slowly from the bottom.

IN CONCLUSION

A final word about focal infections: The term has come by common consent to signify only certain conditions of seeming secondary importance because many of the end-results do not show a definite clinical disease entity, like syphilis, for example. Yet this disease is the most thoroughgoing classical picture of a focal infection in the acquired form. Endocarditis, pericarditis, and myocarditis, as complications of acute infectious diseases, are typical secondary infections. The examples could be multiplied indefinitely.

Obviously, more is to be hoped for in a prophylactic way before a secondary is established, but the elimination of a primary seeding focus is never too late to be helpful.

I have not given much space in this necessarily limited paper to such foci as infected gall-bladder, pyelitis, and prostatitis for two reasons: (*a*) they should really be classified as secondaries, though where the primary original focus has disappeared

they are (*b*) usually significant enough of themselves to receive treatment. Also I believe that the colon frequently is the primary focus when its mucous membrane becomes eroded; but here again removal is impossible as an entirety while smaller portals of entry may have healed long before the secondary becomes manifest.

In conclusion, let me ask your more earnest attention to these more commonly known foci—first noted by Benjamin Rush, but so insistently called to our attention by the brilliant Frank Billings—and to ask you to try to be sure that their removal is complete before judging of the value and importance of the procedure.

230 Grand Avenue.

DISCUSSION

WILLIAM J. KERR, M. D. (University of California Medical School, San Francisco).—This paper of Doctor Strietmann's calls attention to the importance of foci of infection when dealing with secondary involvement in various parts of the body. There can scarcely be any doubt that foci of infection are important in the causation of certain diseases in different structures and organs. We cannot be so certain, however, that the removal of these foci of infection, after the secondary process has developed, will do very much to eradicate this secondary involvement.

However, I think it is quite certain that if definite foci of infection are allowed to remain, the same tissues may suffer from repeated assault, either from the presence of soluble toxins in the blood, or from the dissemination of bacteria either to the secondary lesion which has been set up or to some other part of the body. It would seem rational to remove definite foci of infection whenever they may be found, irrespective of the presence of any secondary lesions.

For many years I have been struck by the frequency with which foci of infection arise in patients suffering from endocarditis, rheumatism of the infectious type, and other secondary involvements, long after these secondary disturbances have developed. It is quite likely that the reduced general resistance seen in many patients with chronic disease tends to predispose to further local disturbances which we classify as foci of infection. I would not for a moment hesitate to remove a nidus from the alveolar process, in the sinuses or in the tonsils in such cases; but I would not be so certain that the condition had existed there before the secondary manifestations arose in the heart, joints, etc.

In many patients with chronic disease it is, I think, of great importance to try to maintain the general health and condition of the patient by proper rest, diet, tonics and other measures. One may use vaccines in treatment which tend to improve the general circulation, and which possibly may enhance the protection through immunological processes.

The author speaks of cures in cases of subacute bacterial endocarditis which do not correspond with my experience and that of many workers in this field. Once the diagnosis of subacute bacterial endocarditis is established on the basis of the general clinical picture plus a positive blood culture, the prognosis is practically hopeless. However, one sees pathologically a few specimens which indicate that there has been a long-continued process which may be caused by these organisms, with scarring in the valves, side by side with an active lesion of an infectious nature. It is probable that if we could classify these conditions, as we are inclined to do at times, we would find that there is a small but definite group of patients who have subacute bacterial endocarditis over a period of many years before they develop the full-fledged picture of septicemia and the embolic manifestations. In going back over the histories of some of our patients who die of subacute bacterial endocarditis and reviewing the pathologic findings, we are convinced that, years before, they had an active process with embolism to various organs which quieted down and seemed to get well. I have observed clubbing of the fingers in these patients for ten years before a diagnosis of subacute bacterial endocarditis was proved. I do not think that any treatment which we have ever used has been of any special value in handling these patients.

There has been much discussion about the value of removing foci of infection in patients who have angina pectoris and other myocardial disturbances and irregularities. It has been my feeling that many such patients were definitely improved by removing the foci of infection; but I have taken the attitude that foci of infection should be removed for their own sake and irrespective of whether they will definitely clear up the cardiac condition or not.

The results from removal of the tonsils and other foci of infection in children with rheumatic heart disease has, I think, been on the whole rather disappointing; but there seems to be some evidence that early removal of tonsils before rheumatic infection has developed may tend to prevent this occurrence in a number of instances.

CHARLES MINER COOPER, M. D. (2000 Van Ness Avenue, San Francisco).—It has been my notion that any undraining focus of infection is a potential menace to its carrier. It is true that it may lie latent and perhaps never do any harm. On the other hand, I have seen numerous cases in which in later years conditions arose which were relieved only by the eradication of the foci.

Most physicians nowadays are with Doctor Strietmann in accepting that the so-called rheumatic manifestations are largely of organismal origin, and we repeatedly see cases of indurative headache, "lumbago," or periarthritis that clear up in an astonishing way after the removal of some focus.

The retina is a highly specialized structure and it is open to inspection. It may exhibit lesions which at first sight appear to be indicative of a grave condition, and yet these may entirely disappear after the removal of a focus of infection; and it is only through the repetition of a number of such sequences that we feel justified in accepting that the focus was the cause of the lesion.

In our complement fixation work we meet with a Wassermann-fast case. The patient has been well treated by doctors versed in that particular field of therapy. A focus of infection is found and eradicated. The serum reaction quickly becomes negative. Here again it is only the repetition of such checked occurrences that carries conviction.

It is difficult, then, to believe that the cardio-vascular or any other system is endowed with a power of defense that will altogether protect it from a disease agent that can affect skeletal muscles, fibrous tissues generally, a specialized structure like the retina, and even immunologic responses.

In bacterial endocarditis with blood stream infection, the organisms have invaded relatively non-vascular structures which cannot be removed or even given rest. When this has happened, one should not expect any benefit from the removal of foci of infection; and I regret to have to say that nothing which I have been able to do has been of service in any of the relatively large number of such patients whom I have seen.

Most patients with angina pectoris present evidence of degenerative changes in the cardiovascular system, with an accompanying lessened functional capacity. With proper conservation of the damaged structures, many live for years, and in some the seizures cease. It is difficult to evaluate the part played by any one component of a system of treatment which has been advised with this in mind. In a small number the removal of a focus of infection has seemed to have been of prime importance, in others salutary, while in others it has played at least but a minor part.

In the arrhythmias, I, like Doctor Strietmann, have seen striking improvement occur subsequent to the removal of foci.

Perhaps I may add that:

1. We can never be sure that we have rendered an individual "focal infection" free, *e. g.*, once the dentine of a tooth has suffered from decay, its tubules have been invaded by organisms. They may remain permanently there, and I recall a number of patients in whom the most striking results followed the removal of an infected living tooth, which was located by the patient and not by me.

2. Most persons carry multiple infections. Even in those cases in which we are convinced that a particular condition is of focal infection origin, we are often unable to say which focus is at fault; and it has often happened that relief came only after the removal of the focus that was left to the last. A succession of such mutilations as the removal of all foci entails is distressing and not without risk to the patient. One must therefore weigh the benefit that can be expected to result against the distress and danger to be run, and advise accordingly.

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Fletcher B. Taylor, M. D. (400 Twenty-ninth Street, Oakland).—The capacity which any profession possesses for development depends upon its ability to coordinate the salient advances of allied sciences with itself. This may be called its "borrowing power."

The medical profession, more than any other, has need of scientific "borrowing power," and in our approach to a problem in focal infection it is necessary for us to "borrow" a judicial quality of mind which will enable us to weigh with unprejudiced attention several parallel lines of evidence at one time.

We are all well aware of the fact that no formula for medical procedure is infallible. There is some danger in habits of thought with reference to the treatment of focal infections. If the best service is to be delivered to our patients, we must be able to view impartially the new facts given us by research confrères, at the same time remaining conservative in their application.

In the consideration of focal infection there are three major opportunities which may bear emprahsis: first, the frank focus which is found in the routine examination of an otherwise healthy patient presents an excellent opportunity to prevent disease; second, the demonstrable focus in a young rheumatic patient is of importance if we want to protect that patient from bacterial endocarditis; third, and this is a matter for careful appraisal and conservative approach, the removal of inflammatory foci in chronic cardiovascular disease of the aged. Here more often supportive medical treatment is needed; less often, the surgical attack upon a focus of infection.

It is essential that before treatment is directed toward any one focus that all the foci be recognized. In this way a needless waste of money, time, effort, and even life may be avoided. Having found one or more foci in an individual we may then direct the therapeutic attack with proper consideration of accessibility of the focus, expense of treatment, and danger to the patient. The tonsils of a patient must not be removed while an aveolar dental abscess is overlooked. Deep-seated foci, expensive or dangerous in treatment, should wait for the clearing of superficial foci.

Those foci which have no drainage portals except by lymphatic channels or the blood stream are most important to the problem. Doctor Strietmann's plan of complete surgical attack on the dental focus is particularly stimulating to me. The work begun must be finished. The sigh of the surgeon who has just extracted an abscessed tooth should not be a sigh of satisfaction. The extraction is the beginning, not the end, of the treatment.

In general it is wise to avoid the sins of omission which are born of medical laziness or the patient's ideas of false economy. Thoroughness should be the keynote of the entire process. And, above all, it is our duty to be completely frank with patients in these as in other matters. We cannot make absolute promises and we must not appear to do so for the sake of medical argument and medical spoils. When we do we are faced with a focal infection in our own professional ethics.

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Doctor Strietmann (Closing).—I must grant, with Doctor Kerr, that subacute bacterial endocarditis rarely results in cure. However, I have seen three such, in two of which large localized abscesses developed. One in the left thigh and another in the right scapular region. The pus was sterile in both instances. It makes me think of the possible advisability of inducing fixation abscesses by injecting turpentine, etc.

With Doctor Cooper, I realize that it is difficult to evaluate the part played by removal of a focus in angina pectoris, but I should like to add that it is equally difficult to say that, particularly when of dental origin, the focus has been definitely and completely removed. A pulp-stone is just as likely to be the result of a metastatic infection as a gall-stone, and I know that such apparently healthy teeth do at times yield a streptococcus.

As Doctor Taylor remarks, the removal of the infected tooth is but the beginning of the surgical procedure for the eradication of this focus, and it is this particular feature which is the burden of my remarks. When we are definitely certain that such a focus has been removed in its entirety, only then may we evaluate the part played and deduce with more reason the dependence of the condition at hand upon the focus removed.

ONCHOCERCOSIS IN NORTH AMERICA*

By Herbert G. Johnstone, Ph.D.
and
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San Francisco

Discussion *by John F. Kessel, Ph. D., Los Angeles; Rawson J. Pickard, M. D., San Diego.*

An interesting disease exists in parts of Guatemala and Mexico, sharply limited to an area several hundred miles wide, extending from the slopes of the volcano Fuego, in Guatemala, north along the mountain range of the Sierra Madres, into the states of Chiapas, Oaxaca, and Guerrero in southern Mexico. This infected area has an average elevation of from two to four thousand feet.

PARASITIC NATURE OF DISEASE

The parasitic nature of the disease was first established in America by Robles in 1916. Calderón (1917) recognized that the common condition, known locally as "erisipela de la costa," was always associated with the presence of nodules located about the head and neck. These nodules were found to contain adult filariae, which were subsequently identified by Brumpt (1919) as a new species of *Onchocerca,* which he designated *Onchocerca cæcutiens.* Subsequent workers, including Fülleborn, Pacheco-Luna, Hoffman, Ochoterena, Blacklock, Blanchard and Laicret finally developed the complete clinical picture with its etiology, transmission, and treatment. Strong of Harvard, in a recent field study of the condition, made many valuable contributions while

* From the Pacific Institute of Tropical Medicine within the Hooper Foundation of the University of California.

* The list of references and additional illustrations will be given in the reprints.

bringing the disease to the attention of physicians in the United States.

Onchocerca cæcutiens Brumpt, the causative agent of American onchocercosis, belongs to the family Filariidæ, subfamily Filariinæ. In the Filariinæ are found many of the filarial worms infecting man, including such forms as *Wuchereria bancrofti* (causing elephantiasis), *Loa loa* (causing Calabar swellings), *Acanthocheilonema perstans,* and the American and African members of the genus *Onchocerca.*

O. volvulus, occurring in Africa, resembles closely *O. cæcutiens,* the American form. Brumpt described the latter species, but due to the similarity with the African form the validity of the differentiation is still in doubt. *O. cæcutiens* is given separate specific classification in that it is found at very high altitudes, localizes on the head and neck region, produces resorption of bone, and has pathogenic sequelae clearly differentiated from those produced by *O. volvulus.* The latter species occurs at much lower altitudes, is found generally on the trunk and extremities and only rarely in the head region, and although the tumors are adherent to the bone, no osseous resorption takes place.

The nodular tumors produced by *O. cæcutiens* are very small, measuring generally from 6 to 20 millimeters in diameter, although Strong states that in Guatemala he has observed tumors 2 to 3 centimeters in diameter, and in one case an extirpated tumor measured 5 centimeters in its greatest length. The fibrous tumors when removed are found to contain male and female adults (the former predominating) as well as numerous microfilariæ. The males, being much the smaller, measure from 2.5 to 3 centimeters, and the females from 30 to 44 centimeters in length (Strong).

The microfilariæ of *O. cæcutiens* (Fig. 3) do not occur normally in the blood, but are restricted solely to the lymphatics. They have the ability to escape through the capsule of the nodule and to wander through the lymphatics of the subepidermal tissue to remote parts. They are easily detected in thin sections of skin removed from infected persons and are actively motile when observed in normal saline solution. Strong has noted that, while the microfilariæ have been found in the skin in all regions of the body, they are most numerous in the areas of the head and neck. The bite of an Eusimulium fly (Fig. 2), the insect vector incriminated in onchocercosis, has a tendency to cause a mobilization of the microfilariæ from the subepidermal lymphatics in the areas of the skin adjacent to the bite. A section of skin removed from such an area previous to a bite of the fly will show perhaps one or two of the larval forms, but immediately following the bite a second contiguous section will harbor a decided increase in the number of microfilariæ.

Blacklock has shown that *Eusimulium damnosum* is the insect vector of *O. volvulus* and has described the various stages of development of the larval worm within the body of the fly. In Africa, *Eu. damnosum* has been the only fly shown to be implicated in the transmission of onchocercid microfilariæ, but in Guatemala and Mexico, Strong states that at least three species are vectors, tentatively identified as *Eu. avidum, Eu. ochraceum,* and *Eu. mooseri.* These flies are of aquatic origin and their breeding places are found widespread in swiftly running streams at high altitudes. Rocks, twigs, grasses, etc., immersed in or continuously sprayed by running water, are the favorite sites chosen by the female on which to deposit her eggs.

Strong has followed the developmental stages of *O. cæcutiens* in Eusimulium from the time of the ingestion of the microfilariæ to the passage of the infective forms through and emergence from the labium. The development in the fly is somewhat similar to that of *Wuchereria bancrofti.* A fly takes from three to five minutes to engorge itself, following which, after a short time, the microfilariæ are found in the gut. From the gut the larval forms pass to other parts of the fly, and in from twenty-four to forty-eight hours following the blood meal, are found particularly abundant in other parts of the abdomen and the thoracic muscles. In the gut the microfilariæ exhibit a greater activity than in the skin of the infected person. During the course of development in the thoracic muscles, marked changes are noted: The larvæ become much broader, decided changes in the caudal appendage are seen, and the alimentary tract shows considerable development. A marked decrease in vitality is observed and the movements have changed from a squirming, sudden type of motion to that of a slow, gliding motion.

These broader forms undergo further changes in the thoracic muscles, and when they reach the infective state measure 450 to 1140 microns in length and 16 to 25 microns in width and resume their former active movements. These active filarial forms pass toward the head to the labium of the proboscis, through which they finally pass. Strong found that of 1,658 simuliid flies caught at random, about 5 per cent were infected.

Hoffman has described the morphology of various members of the Simuliidæ occurring in Chiapas. *Simulium avidum, S. virgatum, S. pseudohæmatopotum, Eusimulium ochraceum, E. mooseri,* and *Eu. turgidum* have been reported from this region. He has found the infective larval forms in one of the above species only, viz., *Eu. mooseri.* Strong has likewise investigated the simuliid flies at Santa Emilia, in Guatemala, and found that three species of Eusimulium were capable of transmitting the microfilariæ of *O. cæcutiens.* Two other species of this same genus were not incriminated.

EPIDEMIOLOGIC IMPORTANCE

From an epidemiologic standpoint, it is of interest to consider the probable northward spread of onchocercosis along the path concomitant with the occurrence of the insect vector. It is supposed that the infection was introduced into eastern Guatemala by natives from Africa. The course of infection proceeded westerly to the mountainous regions along the Pacific, then northerly into the Mexican States of Chiapas, Oaxaca, and Guerrero. The simuliid fauna of northern Mexico is

as yet little known, but in all probability many species exist throughout the country.

The Simuliidæ are found widely distributed throughout the United States. Dyar and Shannon have described forty-seven species and two races occurring on the mainland of North America and Greenland. In California alone, these workers give a list of some eighteen species (Fig. 1). Most of the California species reported are found in the northern high Sierras. Six of the eighteen California species are members of the genus *Eusimulium,* various foreign representatives of which are the vectors of onchocercid larvæ. In considering the probable contamination of our own simuliid flies from imported cases of onchocercosis, the attendant climatic and geographic factors must be considered. The questions as to whether onchocercosis can be contracted and progress in any climate other than a tropical one, or whether our native flies are capable of serving as vectors deserve close attention.

Due to the migration of the microfilariæ, several remote effects are produced. The most common is the skin condition known as "erisipela de la costa," which may involve varying areas of the face, including the ears, nose, and lips. In the acute stage the skin becomes dry and shiny, with a greenish discoloration, such as one sees in an ecchymosis several days old. There is considerable swelling, with a nonpitting edema frequently present. Subjectively there is intense pain and itching, especially if scratched; a sensation as if insects were crawling over the face (formication) is experienced. A fever is usually present, ranging from 102 to 105 degrees, and children may develop great prostration, with convulsions and delirium. This state may exist for several days and then rapidly disappear *per se*. There may be recurrent attacks over a period of years. A chronic state is recognized in which the skin of the affected parts is thickened and furrowed, with a pallid greenish tinge, and a hard edema. There may be exacerbations of this condition at intervals of from one to two months. An eosinophilia is present, ranging from 25 to 50 per cent.

In its further migrations the microfilaria chooses the eye for a resting place. There is a large concentration of the actively motile larval forms, especially in the outer third of the corneal epithelium. For a long time the relation of the filaria to eye complications was not recognized, but when a series of cases had been observed where removal of the worm-containing nodules was followed by marked clinical improvement, their dependency was established. Final objective proof was provided when Ochoterena demonstrated the presence of the microfilaria in sections made from an excised eye of a blind man. Since then a wide variety of conditions, beginning with simple photophobia and ending with complete blindness, have been attributed to the filaria. In the acute stage, which may accompany the skin involvement, the soft tissues about the eye are swollen and closed. There is intense photophobia, blepharospasm, and periorbital headache. There may then develop, singly or in combination, a conjunctivitis, punctate keratitis, corneal leukoma, acute or chronic iritis, a pigmentation of the sclerae, progressive diminution of the visual fields, and complete blindness. All of these conditions are due to presence of the microfilariæ, which set up a foreign body reaction, scarring the parts involved. In the late stage there may be little evidence of the past attacks, with the exception that the visual field is reduced, or that complete blindness is present. The pupils may then be contracted and do not react to light or distance.

These serious eye complications are peculiar to *Onchocerca cœcutiens*. The widespread *Onchocerca volvulus of Africa,* to which it is closely related, does not seem to produce these complications, except in rare instances. This difference may find its explanation in the habits of the two native peoples. The natives of Africa wear little or no clothing, while those of Central America wear shirts, trousers, and footwear. This is undoubtedly a factor in determining the site that the simuliid fly would elect to bite. In Africa the worm-containing nodules are confined almost entirely to the pelvic girdle, while those of Central America are about the head and neck.

Fig. 1.—Distribution map of the simuliid flies in California, as reported by Dyar and Shannon (1927). Note that the majority of species occur in the northern high Sierra counties.

Fig. 2.*—A simulliid fly, the insect vector of *Onchocerca cœcutiens*, found widespread throughout the infected areas of Guatemala and Mexico.

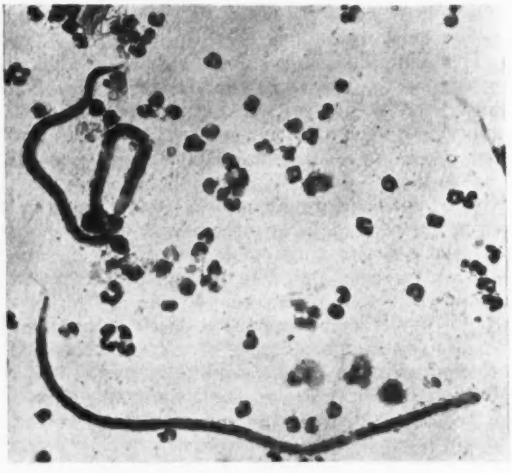

Fig. 3.—Lymph smear showing the microfilariæ of *Onchocerca cœcutiens* X320.

This difference in anatomical location may explain why two almost identical organisms produce different clinical pictures. Other filariæ have been found in the eye, but these are regarded as medical curiosities.

DIAGNOSIS

The diagnosis of *Onchocerca cœcutiens* in an infected locality is comparatively simple. The nodules with the presence or history of skin and eye complications produce an easily recognizable clinical picture. These nodules may be easily removed and on sectioning will always show the adult macroscopic worm. In itself, the skin condition could easily be confused with our erysipelas, the differential points being the peculiar greenish discoloration and the fact that skin sections will always show free microfilariæ. The eye complications are so varied that they may closely resemble many conditions present in the temperate zone. There remains the fact that long after the acute stage has passed and little evidence of irritation is present, the pupils may have been so affected that they do not react to light or distance. Taken alone, this finding may indicate syphilis, but the presence of nodules and a history of erysipeloid attacks would lead to a suggestion of the etiology.

TREATMENT

The treatment is simple. There is no known drug that will kill the wandering microfilariæ. The encysted adults are also safe from the action of any known filariacide. Consequently there remains only the removal of the source of infection, that is, surgical removal of the nodules. Very frequently this procedure is followed by a remarkable clearing of symptoms. This is true especially in the acute cases, where the relief occurs over night. But even when the disease has become chronic, this surgical procedure is of benefit. The case should not be dismissed but observed from time to time to watch for the development of nodules which may have been too small to detect at the time of the previous examinations. Frequently a residual blindness may remain, which, however, can often be helped by iridectomy.

PREVENTION

The problem of prevention is difficult. The Eusimulium fly is very active and lives in heavily wooded terrain by the side of swiftly flowing streams, and especially at the base of waterfalls. These facts present practical obstacles which are difficult or impossible to surmount.

Other measures, such as screening homes, placing mosquito netting about beds, and perhaps even wearing a daytime netting hung from the headwear are of some value. Strong has suggested the systematic removal of the worm-containing nodules and if accomplished this would render the fly noninfectious in time. However, observations over a continued period would be necessary, because minute missed nodules would continue to supply a source of infection.

IN CONCLUSION

This disease may seem a medical curiosity to physicians of the temperate zone since it has no immediate attendant public health problems, but we should become acquainted with it for the following reasons: (1) Clinical manifestations of Onchocercosis resemble many conditions of the temperate zone. (2) The Eusimulium fly is widespread in certain localities throughout the western states. (3) The disease has shown a definite tendency toward a northern migration. (4) The numerous Mexican immigrants in the United States provide an opportunity for the presence of a carrier of *Onchocerca cœcutiens*. This may lead subsequently to the contamination of our own simuliid species. If this occurs, a case of the disease is sure to make its appearance sooner or later; and, once present, it is difficult to eradicate.

Hooper Foundation, University of California.

* Figure 2, through the courtesy of Dr. Gaston Melo, Jefe del Departamento de Salubridad Publica, Mexico.

DISCUSSION

JOHN F. KESSEL, Ph. D. (University of Southern California, Los Angeles).—Though onchocercosis has been known for some sixteen years in Central America, only an occasional critical report has occurred in American journals and there are probably few physicians in California, even in the specialized field of ophthalmology, who are familiar with the condition and who would be prepared to recognize a case if the same were presented. This report should serve a twofold purpose: (1) to acquaint the profession throughout the state of California with the major characteristics of onchocercosis; and (2) to sound a warning so that our state will be on the alert to recognize the dangers of a possible advance of the disease into this region.

The fact that the filaria involved in the Mexican form of the disease is adapted for transmission to several species of Simuliidæ and that these species, in turn, are different from the insect vectors of Onchocerca in Africa, would indicate that the Simuliidæ or Buffalo gnats found in California or other parts of the United States of America might also serve as transmitting agents.

This is an excellent report on a timely subject.

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RAWSON J. PICKARD, M. D. (805 Watts Building, San Diego).—It is the large proportion of parasitic diseases that makes tropical medicine so interesting a field. The diagnosis can be a certain one, often the cure is as certain, and the mode of transmission of parasitic infestations, as well as the story of their discovery, is always interesting, sometimes exciting. The paper on Onchocercosis by Doctors Johnstone and Larsen fulfils these pleasant requirements.

There is also much of the unknown awaiting the patience and time of investigators in tropical medicine. Coutelan, studying the central internal body of microfilaria, found it to be a protein inclusion, an alimentary reserve, a sort of vitelline body, and reminds us that microfilaria are "in a manner hatching eggs (œufs embryonnés) in which the larval forms lacking a digestive tube are still in their first stage of development." In that Coutelan's work is based on the common and well-known microchemical staining reactions, it emphasizes the value of using the simple means of investigation at hand everywhere.

Concerning onchocercosis, Brumpt says the diagnosis of filarial itch is more easily made by allowing the vector fly to bite the affected area and then examine the gut content for microfilaria than by biopsy. Strong successfully used this method in Guatemala. The present paper should stimulate search in this state for the possibility of the existence of filarial mange in animals, which exists in Australia in cattle.

PANAMERICAN MEDICAL ASSOCIATION*

A REPORT ON FOURTH CONGRESS

By CHARLES P. MATHÉ, M. D.
San Francisco

THE fourth congress of the Panamerican Medical Association, held in Dallas, Texas, March 21-25, 1933, was a decided success. It was the first meeting of the association in an English-speaking nation, the other congresses having been held in Havana, Cuba, Panama and Mexico City.

THE DALLAS MEETING

Its successful outcome was due to the untiring work and guiding spirit of its officers, consisting of Doctors Francisco Fernández (Cuba), president; Conrad Behrens (U. S. A.), treasurer; J. E. López Silvero (Cuba), secretary; Miguel Branly (Cuba), Roberto Gutierrez (U. S. A.), Francisco de P. Miranda (Mexico), and Joseph J. Eller (U. S. A.), assistant secretaries; and the seventeen vice-presidents and the twenty-four trustees selected from the twenty-two countries making up the Western Hemisphere.

The congress was originally scheduled to take place in New Orleans, and the untimely death of Dr. Aristides Agramonte of yellow fever fame, permitted Dr. John Oliver McReynolds, past president of the Texas State Medical Association, to swing the meeting to Dallas, Texas. To him and to the Dallas sponsors and committees great credit is due for the success of the congress. Doctor McReynolds' unfaltering courage, particularly during the trying period of financial uncertainty, with all the banks of the United States and Cuba closed just two weeks before the scheduled opening of the congress, is responsible for the culmination of the most successful meeting ever held by the association. During these times of greatest depression he informed all interested in the congress by letter, radio, and wire that it would take place and that checks presented by men coming from all parts of the Western Hemisphere would be honored. In addition, the annual meeting of the Southern Clinical Society, which was to have taken place immediately after this congress, was canceled in order to afford an opportunity for the medical men of the south to attend the congress of the association. In all, about 1500 medical men from the United States and our Latin-American sister republics attended. The official languages of the association are Spanish, French, Portuguese, and English. Most of the papers were given in English, as many of our Latin-American brothers speak our language. Others gave their addresses in the beautiful Castilian language and in French.

ADDRESSES

The inaugural session took place in the spacious McFarlan Auditorium of the Southern Methodist University. A telegram of welcome from President Franklin D. Roosevelt and from the legislative bodies of the national government was read by Doctor McReynolds. Speeches were made by Doctors Francisco Fernández and López Silvero of Cuba, Francisco de P. Miranda of Mexico, Dean Lewis, Charles Mayo, Lewellys F. Barker of the United States, and many others, setting forward the purposes of the association, which are the advancement of the science and art of our noble profession, the stimulation of the spirit of broad fellowship and good will, and the social and intellectual development of the medical men of the new world. The speakers pointed out that the congress hoped to blend the best practical thoughts and progressive ideals of the century with the cultural influences of international contacts, reinforced with a world-wide knowledge of the achievements and needs of the human race.

* Report submitted by Charles P. Mathé, M. D., San Francisco.

SCIENTIFIC SECTIONS

The scientific program included leading men of the Western Hemisphere. In surgery Dr. Charles H. Mayo entertained the audience on subjects chosen from his wide experience in this field. Another surgeon, Dr. William D. Haggard, rightly earned the reputation of being a silver-tongued orator and a raconteur of unusual ability. The anecdotes which he related in the pure African language in connection with his position as toastmaster of the formal banquet, will be remembered by all who had the good fortune of hearing him. Dean Lewis of Baltimore, Doctors H. R. Hartman of Rochester, Ulises Valdes of Mexico, Ernesto R. de Aragon of Havana, and Augusto S. Boyd of Panama, all aided in making the surgical program a success.

Dr. Fred H. Albee of New York was president of the Section on Orthopedic Surgery. This great orthopedist was president of the first congress held in Havana, Cuba, and has been an indefatigable worker in forwarding the interests of the association. Some time ago he conducted a "flying clinic," stopping in the medical centers of Central and South America, promulgating the standards of the association and forming new chapters. Dr. Alberto Inclán, president of the Spanish-speaking orthopedic section, entertained the audience with his interesting papers and formed many friends by reason of his charming personality.

In ophthalmology Doctors Rafael Silva, Th. B. Halloway, and Conrad Behrens were responsible for a most successful sectional meeting. To Dr. Conrad Behrens great credit is due for his untiring work as treasurer and in connection with the extension of the association in America. In otorhinolaryngology Dr. Chevalier Jackson and son, pioneers in the field of bronchoscopy, headed the list of numerous speakers in the section of this fast-progressive branch of medicine. Limitation of space will not permit me to enumerate the participants and officers of the various sections. However, I cannot help to mention Doctors Hugh Young of Baltimore, Joseph McCarthy of New York, Julius J. Valentine of New York, H. W. E. Walther of New Orleans, Granville Crabtree of Boston, and Roberto Gutierrez of New York, in urology; Lewellys F. Barker of Baltimore, Charles Best of Toronto, Elliott P. Joslin of Boston, Fernandez Ocaranza of Mexico, and Aloysio de Casto of Rio de Janeiro, in general medicine; Surgeon General Hugh S. Cumming, Major General Robert U. Patterson, Rear Admiral Charles E. Riggs, Bolivar J. Lloyd of Washington, D. C., in the International Medical Relations Section; F. P. Gengenbach of Denver, Laurence Richard de Buys of New Orleans, Angel A. Aballi of Cuba, and Antonio Sorod Norioga of Mexico, in pediatrics; Joseph Jordan Eller of New York City, Paul O'Leary of Rochester, Vicentes Pardo Castello of Cuba, and Joan J. Mestre of Cuba, in dermatology and syphilology; Charles Craig of New Orleans, George Shattuck of Boston, Rigney d'Aunoy of New Orleans, and W. Hoffman of Cuba, in tropical medicine and pathology; Conrad Behrens of New York, James C. Braswell of Oklahoma, and Martiniano Mirelles of Mexico, in aviation medicine. Of this group Dr. Julius Valentine, president of the second congress, Dr. Roberto Gutierrez, and Dr. Bolivar J. Lloyd have been particularly active in placing the association on a firm basis. Their numerous international contacts and their thorough knowledge of Spanish have been of inestimable aid to us here in the United States.

From San Francisco, Doctors Hans Lisser, Ernest Falconer, and Edgar Gilcreest spoke in the capacity of invited guests. Dr. Louis F. X. Wilhelm of Los Angeles went as an officer of the Dermatology Section and alternate delegate of the California Medical Association. Dr. Charles Pierre Mathé of San Francisco went in the official capacity of delegate of the California Medical Association and vice-president of the Urology Section, and participated in the scientific session of the Urology and General Surgery Sections.

NEXT CONGRESS IN 1935

It was decided that the next congress should take place in Bogota, Colombia or Caracas, Venezuela, in the spring of 1935. This is to be a "floating congress." A luxurious ocean liner is to be chartered, of sufficient size to accommodate the members, wives and families, and it will start from New York, touching at Miami, Florida, Havana, and the ports of consequence in South and Central America, finally terminating in either Colombia or Venezuela, the next country in which the congress is to be held. The idea of a floating congress gained great popularity, as it will give the members and their families an opportunity of visiting the various Latin-American countries.

OFFICERS

The newly elected officers of the association are: John Oliver McReynolds, president; Joseph Eller, English-speaking secretary; J. E. Lopez Silvero, Spanish-speaking secretary; Conrad Behrens, treasurer; and seventeen vice-presidents selected from the twenty-two nations of the Western Hemisphere, among which Charles Pierre Mathé of San Francisco was chosen.

CALIFORNIA BRANCHES

The ideals of the association, among which are the promotion of more intimate and friendly relations and mutual understanding among physicians and surgeons of the Western Hemisphere, are conceded by all our progressive medical men. It is the purpose of its present officers to include the medical centers in Brazil and Argentina and to form chapters in the principal cities of the United States and Canada. Membership is open to the members of the California Medical Association. The San Francisco chapter, formed some two years ago, is flourishing, and chapters are in the process of formation in Los Angeles and Seattle.

450 Sutter Street.

THE LURE OF MEDICAL HISTORY*

HIERONYMUS FABRICIUS AB AQUAPENDENTE*

By S. L. MILLARD ROSENBERG, Ph. D.
University of California at Los Angeles

III

WE have considered the first two of the five works by Fabricius, contained in the volume we are examining,† and now come to the third—a document, like *De Formato Fœtu,* of the highest value in the history of embryology. And here, reverting again to Harvey, we may say that in his treatise *On Generation* Harvey leaned heavily on this work of Fabricius. It is entitled *De Formatione Ovi et Pulli,* and is illustrated with seven magnificent full-page copper plates. Dr. Grindon says:

*A Twenty-five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of California and Western Medicine. The column is one of the regular features of the Miscellany Department of California and Western Medicine, and its page number will be found on the front cover index.

* Part I of this article was printed in the March issue and Part II in the April number of CALIFORNIA AND WESTERN MEDICINE.

† For welcome aid and helpful suggestions with some of the difficulties encountered in the translations from the original Latin texts, for the purpose of the present study, it is a pleasure to express thanks to my friends, Professor L. H. Loenholm, formerly of the University of Tokio, and to Professor Herbert B. Hoffleit of the University of California at Los Angeles.

† See footnote to Part I in March issue of CALIFORNIA AND WESTERN MEDICINE.

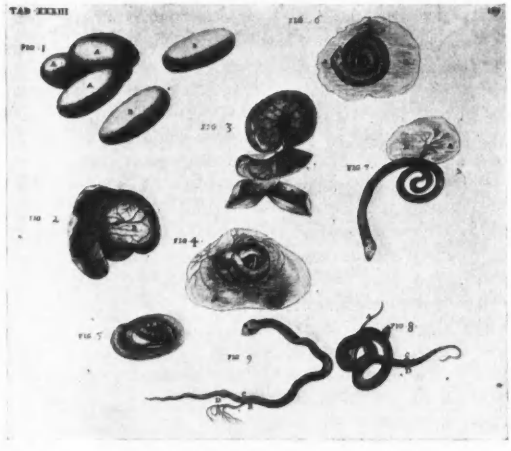


Fig. 8.—Figures 1-9, Plate xxxiii, of *De Formato Fœtu.* Figure 1 shows five eggs of the snake. A, A, A, three eggs united by the tunic only. B, B, two eggs separated from the membrane. Figure 2, the prior tunic separated from the other one lying below. A, the first tunic of the egg, full of veins. B, the other tunic, lying below. C, the trunk of the vein running through it. Figure 3 shows A, A, A, the internal part of the prior tunic. B, the second opposite part of the tunic. C, a small part similar to a cone where the tunic is missing. Figure 4 shows the first tunic removed from above, and the two tunics lying below, one very thick, the other thin and lying close by the fetus; also the position of the fetus. A, A, A, the second tunic. B, the third tunic, touching the fetus. C, fetus. Figure 5 shows the position of the fetus extricated from one exterior spiral, the better to visualize the position of the upper fetus. Figure 6, a variation in the position of the other fetus. A, A, the thick membrane or chorion. B, the umbilical vessels. Figure 7, the same fetus drawn out, the head hanging down so as to show better the umbilical vessels. A, A, chorion. B, umbilical vessels. Figure 8, the snake rolled together. A, the umbilical vessels. B, the place of their insertion. C, the interstice between the testicles and the navel. D, the testicles.

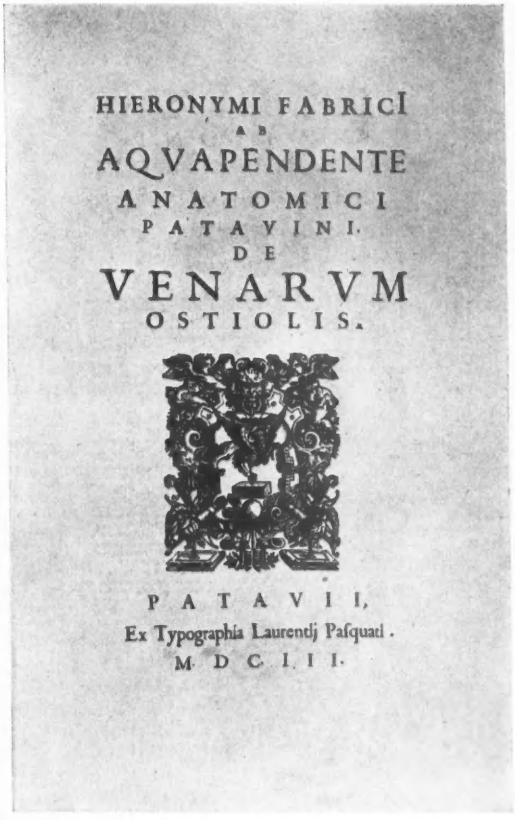


Fig. 9.—Frontispiece of *De Venarum Ostiolis.* Translation:

Hieronymus Fabricius of Aquapendente, Anatomist,
of Padua,
on
The Valves of the Veins
Padua
From the press of Laurentius Pasquatus
1603

Note: On the dedicatory page it says that "Hieronymus Fabricius dedicates this book to the glorious German Nation."

"More than ten generations of physicians have unceasingly labored since this work was written, and yet, all things considered, it is wonderfully full and correct. A quaint passage describes the method by which the chick finally issues from the egg: 'The chick needing air, by its chirping notifies its mother that it is time to break the shell, its own beak being too soft for the purpose. There is, however, sufficient space and air to permit the chick to chirp loud enough to be heard, as both Pliny and Aristotle bear witness. The chirping may have a pleading sound (forteque quidpiam petentis significatrix) and the hen, hearing it and understanding the need, or, if you please, eager to behold her chick and most dear child (pulli dilectique filii conspiciendo desiderio), pecks open the shell.' The error of this description was pointed out some years later by Harvey, who correctly insisted that the chick makes its escape without the aid of the hen."

The fourth study in our book is a treatise *De Loquela Brutorum,* which contains, says Doctor Grindon, some queer statements: "Our author

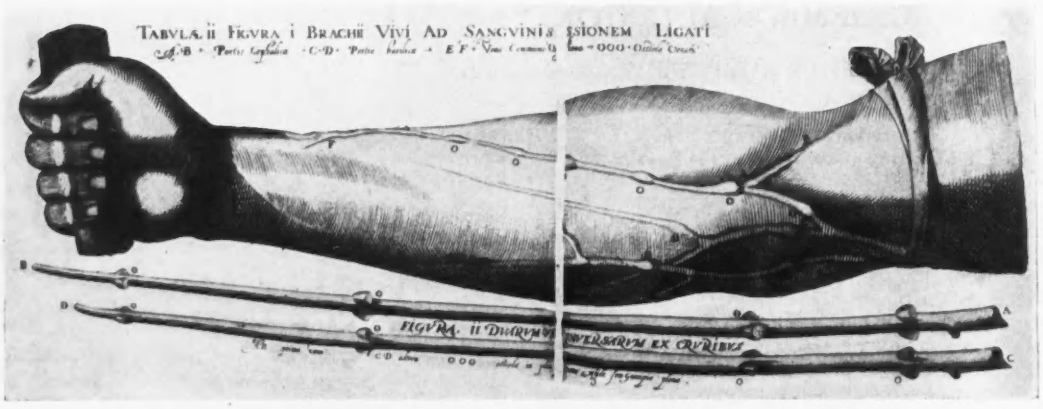
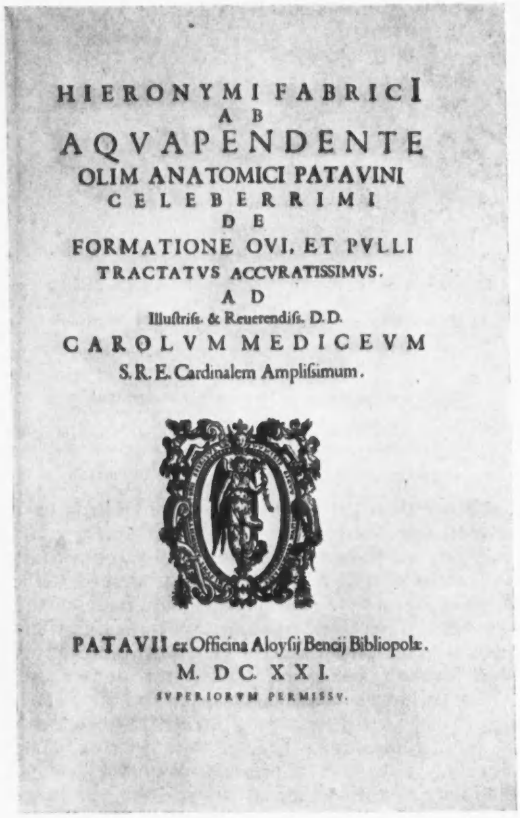


Fig. 10.—Figures i and ii, Plate ii, of *De Venarum Ostiolis.* Figure i shows a living arm, the upper arm compressed by a bandage, as in blood-letting, A-B, portion of the cephalic or humeral vein. C-D, portion of the basilic or jecorary vein. E-F, "vena communis" or vena mediana, in which, as in other veins, the valves, O, O, O, appear like nodes; these valves can be seen outside in the living arm. Figure ii shows two inverted veins of the legs; how the valves, O, O, O, stand inside the cavity of the veins is clearly shown. But from an inspection of those inverted veins, the singular fact appears that the first, or upper, valves are placed at an angle to the next following, like the branches in plants. Also note that in the upper vein, A-B, the valves are filled with xylon or gossipion, in order to show them better; but in vein C-D the valves are empty.


HIERONYMI FABRICI
A B
AQVAPENDENTE
OLIM ANATOMICI PATAVINI
CELEBERRIMI
DE
FORMATIONE OVI, ET PVLLI
TRACTATVS ACCVRATISSIMVS.
A D
Illustriſs. & Reuerendiſs. D.D.
CAROLVM MEDICEVM
S.R.E. Cardinalem Amplisimum.

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M. D C. X X I.
SVPERIORVM PERMISSV.

Fig. 11.—Frontispiece of *De Formatione Ovi et Pulli.* Translation:

Hieronymus Fabricius of Aquapendente, the widely celebrated former Anatomist at Padua, on *The Formation of the Egg and the Chick,* a highly accurate treatise. Dedicated to the Most Illustrious and Reverend Doctor of Divinity, His Eminence the Most Noble Cardinal Carolus Mediceus. Padua. Press of Aloysius Bencius, Bookseller. 1621. With permission of the Superiors.

Note: This treatise, in three chapters, profusely illustrated, shows the daily development of the chick, and observations from the fourteenth to the twenty-fourth day, i. e., to the time of hatching. The first chapter deals with the history of the uterus in birds; chapter two, of their function in the generation of the eggs; the third further discusses their function.

contends that every animal species has its own language, and he records instances of persons who could understand them. In support of his belief that men may learn to understand the speech of animals, he argues: 'If brutes that are scarcely capable of instruction understand when men speak to them, it should be far easier for man to understand brutes.' "

The final treatise in our book, though closely related to the preceding one, is not mentioned by Doctor Grindon. It is *De Locutione et eius instrumentis;* that is, The Mechanics of Speech. There is one full-page plate showing the organs of speech, except that the larynx is not laid open. The elements of articulation and production of voice, their places of production and mechanics, the mechanical reasons for mispronunciation, peculiarities of speech in various lands, and the multitude of citations and illustrative anecdotes make this treatise as interesting to phonologists as to medical men. Fabricius always wrote colloquially when the subject permitted, constantly revealing his neighborly attitude. Quotable passages abound; here is one:

"The Emperor Charles V, I have heard tell, used to say that German is the language for soldiers; Spanish, for lovers; Italian is suited to oratory; and French to the converse of nobles. But Alius, who was a German, referring to what Charles had said, remarked that Spanish is best in prayer to God, because it is grave and majestic; Italian is of an intimate nature and suited to friendly conversation; French is the most effective in persuasion, since it is the softest speech; but if threats are needed and a harsh mode of address, speak in German, as it is the roughest, most vehement and menacing."

It is noteworthy that English is ignored by both Charles and Alius.

"There are several works of Fabricius," says Professor Singer, "which illustrate the first stirring of the new physiological movement. Such treatises as that *On Respiration and its instruments* exhibit the complete helplessness of physio-

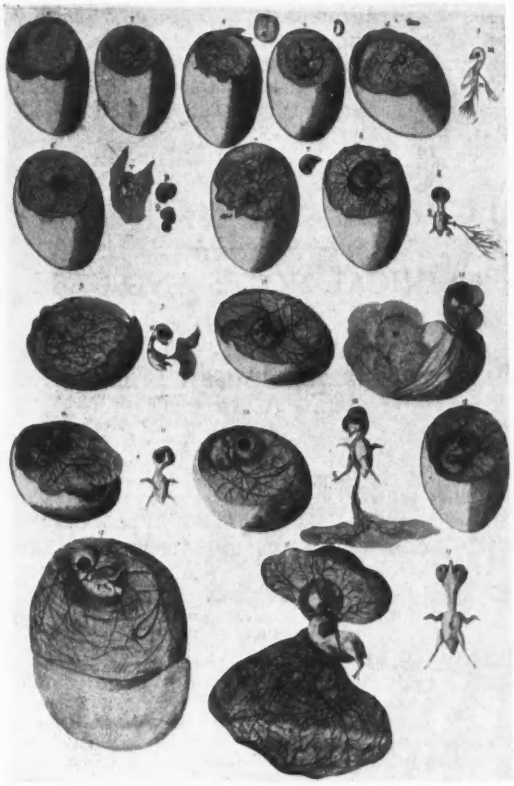

Fig. 12.—Reproduction of page 63 of *De Formatione Ovi et Pulli* and translation of the accompanying explanation of the figures. Figure 2 is of the egg as it appears on the second day after incubation. A, obtuse part, in which nothing has been formed as yet, excepting that the albumen has taken on greater concretion. Figure 3, third day; B, the membrane called chorion. C, umbilical vessels running through the chorion. D, larger branches. E, yolk. Figure 4, fourth day. F, body of chick, like a very small flea. G, chorion. H, several small branches of the vessels issuing from the chick. I, an extracted fetus, showing head and spine. K, fetus leaning toward middle of egg. Figure 5, fifth day. L, the large membrane and the fetus. M, an extracted fetus with head and spine. N, umbilical vessels inclining down from the fetus. Figure 6, sixth day. O, larger fetus, conglobated. P, the larger umbilical vessels. Q, first fetus extracted, wrapped in membrane. R, second fetus conglobated. S, third fetus extracted. T, head larger than the rest. U, large prominent eyes. Figure 7, seventh day. A, yolk, diminished more than in the preceding. B, extracted fetus, of same size as in Figure 6. C, bladder projecting from head and taken to be the brain. Figure 8, eighth day. D, larger fetus, body apparently formed. E, E, vein and artery entering the navel. F, extracted fetus. G, incipient wings. H, legs. I, umbilical vessels entering navel. K, large head. Figure 9, ninth day. L, larger fetus and larger vessels. M, extracted fetus. N, eyes apparently quite formed. O, beak. formed. P, vessels with membrane inserted in navel. Figure 10, tenth day. Q, fetus, in middle of egg. R, extracted fetus. S, bladder enveloping head, like kidneys. T, head quite formed and clear. U, chorion, with fetus in water. Figure 11, eleventh day. A, still larger fetus. B, eyes of extracted fetus, the largest feature. Figure 12, twelfth day. C, fetus conglobated in egg. D, larger and fuller vessels. E, right foot of extracted fetus, toes distinct. Also E, vessels with membrane appended to navel. Figure 13, thirteenth day. F, larger fetus. H, first fetus extracted with yolk, albumen, and vessels. I, vessels extended through yolk and albumen. M, membrane surrounding yolk. N, third membrane enveloping fetus. O, third perfect fetus, feathers appearing.

Fig. 13.—Translation of the frontispiece of *De Brutorum Loquela:*

Hieronymus Fabricius of Aquapendente, Anatomist, of Padua on *The Speech of Animals.* Padua. Press of Laurentius Pasquatus. 1603.

Note: The treatise is in six chapters, dealing with (a) whether animals really speak, and what kind of speech; (b) whether human speech differs greatly from that of other animals; speech between animals; (c) use and purpose of speech between animals; (d) expression, among themselves and toward others, of animals to show mental states; (e) manner in which the speech of animals may probably be understood and learned; (f) the organs of speech in animals, the most important parts thereof, and the manner of articulation.

logical thought in the absence of any real knowledge of the workings of the heart or of the nature of the respiratory exchange. We have here merely an intellectual discontent with current views without any systematic building of new knowledge. Somewhat more hopeful is the outlook when Fabricius attempts to analyze the muscular action of the digestive tract. He also wrote a book devoted to vision, in which he gave good figures of the structure of the eye, being the first of moderns to grasp the true form of the crystalline lens."

Of instruments devised or recommended, a few may be noted in a very cursory reading: In operating for pterygium, Fabricius used a leaden ring slipped between the eyelids, taking pains to spare the caruncle; a new instrument for removing nasal polypi is described; when inflammation prevents separating the jaws, the patient may be fed through a curved canula inserted through one of the nares; artificial teeth and instruments for extracting teeth; instruments for removing foreign bodies from the esophagus and the ear; an apparatus for torticollis; use of the catheter—these are only a few of the great number, many of them of his own invention, that might be listed.

For some reason we do not divine, this kindly man had a grudge against his contemporary Eustachius, whom he mentions only to oppose;

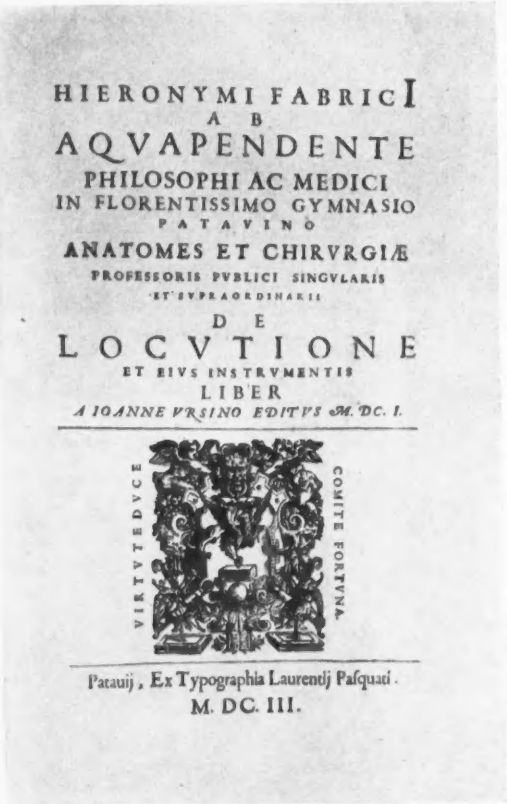
HIERONYMI FABRICI
A B
AQVAPENDENTE
PHILOSOPHI AC MEDICI
IN FLORENTISSIMO GYMNASIO
PATAVINO
ANATOMES ET CHIRVRGIÆ
PROFESSORIS PVBLICI SINGVLARIS
ET EXTRAORDINARII
DE
LOCVTIONE
ET EIVS INSTRVMENTIS
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Fig. 14.—Translation of the frontispiece of *De Locutione:*
The Book of Hieronymus Fabricius of Aquapendente, Philosopher and Physician at the most flourishing Gymnasium of Padua, Unique and Extraordinary Public Professor of Anatomy and Surgery, on
Language and Its Instruments.
Published by Johannes Ursinus, 1601.
Padua. Press of Laurentius Pasquatus
1603

Note: This treatise, dedicated to Thomas Zamoyski, son of Johannes, Chancellor of Poland, deals in thirteen chapters with the anatomy of language, as follows: (a) use of language explained, not grammatically, but philosophically; (b) Aristotle's definition; (c) detailed description of articulation; (d) the letters and their kinds; (e) the seven philosophical problems of letters expounded and solved; (f) syllables; (g) the double organ of language, causes of consonants and vowels; (h) places of production of vowels and their effect; (i) functions of the tongue, lips, etc., in articulation; (j) effective and useless motions of the tongue in articulation; (k) the various formations and pronunciations of the letters; (l) the number of letters and the varieties of dialects; (m) the natural letters [i. e., as pronounced; the written letters Fabricius calls "artificial"].

for instance, he credits Aristotle with the discovery of the eustachian tube, and ignores the discovery by Eustachius of the external ligament of the malleus.

He failed to see the use of the cochlea, discovered by Fallopius, and calls it a mass of formless cavities of which no exact description can be given. There are but few of such lapses, however; the marvel is that Fabricius saw so much and exhibited such originality. And it is greatly to his credit that, though so daring and resourceful a surgeon, he constantly advises against resort to the knife except when all medical means have failed, and gentle surgical measures are frequently substituted for the more severe ones in use. "Satius est sine spe patientes mori quam occidi," [1] he says; and I may terminate this sketch with a rule he reiterates which might be, even today, more closely followed: "Chirurgia omnino dimittenda est quando medicamentum sanare potest." [2]

4508 Willowbrook Avenue.

1 "It is better for patients to die without hope than to be slaughtered."

2 "By all means dispense with surgery when a cure can be effected by medicine."

CLINICAL NOTES AND CASE REPORTS

RELAPSING FEVER: A NEW ETIOLOGICAL OBSERVATION*

WITH CASE REPORT OF A FIELD WORKER

By ROBERT T. LEGGE, M. D.
Berkeley

THE introductory comments to the case report which follows are printed in this issue in the Editorial Comment department. (See page 380.)

REPORT OF CASE

C. W., age 29, single. A young medical entomologist, a graduate student at the University of California, was employed by the California State Board of Health, on account of the reporting of a few cases of relapsing fever in California, to make a field survey of certain ticks found on rodents in this state to determine whether these vectors were carriers of spirochetes. The place of operation was in Sierra County. A species of tick of the genus Ixode, a larval variety, light gray in color, about half the size of a pin-head, was found on chipmunks and tamarack squirrels. Many of these animals were shot, and in some of the specimens spirochetes were found on microscopical examinations of the blood smears.

Eight days before the onset of the prodromal symptoms, the patient sustained a deep scratch of his right thumb and had a raw area on his hand from a burn, and while handling a freshly killed tamarack squirrel the blood of the animal contaminated his wounds. The blood smear of this animal was positive for spirochetes, and when inoculated in laboratory mice produced spirochetosis. The incubation period and the symptoms were typical. The patient came home as soon as the prodromes appeared. He was seized with a dull mental depression, chill and sweating, severe frontal headache, pains in his back, thighs and forearms. Face flushed and hot. Temperature, 101 degrees Fahrenheit. Vomited several times. Complained of a cough and being very ill.

Physical Examination.—Eyes suffused, tongue coated, chest negative. Abdomen, no macular spots; liver and spleen, slight dullness; some sensitiveness on palpation. Urine: Specific gravity, 1.030; trace of albumen; sugar, negative; few granular casts. Blood count: White blood cells, 12,800; polymorphonuclears, 89 per cent; malarial organisms, negative. Agglutination tests: Typhoid, undulant fever, and tularemia, negative. Spirochetes found in smear.

A white mouse inoculated with the patient's blood died from the disease with positive blood findings (*Spirochæta recurrentis*).

Diagnosis.—On account of cough, fever and aching, influenza might be suspected. Typhoid was considered. The history of contact and the spirochetes found

* From the department of hygiene, University of California.

* Read before the Alta Bates Hospital staff meeting, September 12, 1932.

in the blood during the febrile state, which rose to 104 degrees Fahrenheit on the third day of the attack, clinched the diagnosis of relapsing fever.

Treatment.—During the period when the temperature was at its highest one intravenous injection of .03 neoarsphenamin was introduced. On the following morning, temperature was normal, tongue clean, blood examination negative, and mice inoculated with patient's blood showed no symptoms. With the exception of some aching in the back for a few days, the patient remained afebrile without another relapse. For a period of a fortnight he was kept under observation. The cure was certainly magical.

COMMENT

The reporting of the history of this case should be of scientific interest to both public health authorities and clinicians, as it offers an explanation as to how relapsing fever may be endemic in California; and conclusively proves that certain field rodents are victims of spirochetosis, which may be conveyed to man.

The question as to whether the vector is a species of tick of the genus Ornithodorus must be eventually decided by the findings of research investigation.

University of California.

MARKED HYPERGLYCEMIA IN DIABETIC KETOSIS AND BEGINNING COMA WITH RECOVERY*

By E. F. KEHR, M. D.
AND
R. A. KOCHER, M. D.
Carmel

FOSTER [1] reports 1,260 milligrams of blood sugar in a case of diabetic coma; Curtis and Dixon,[2] 1,690 milligrams; Shepardson and Anderson,[3] 1,090 milligrams; Gray and Sansum[4] report a fourth case, which showed 900 milligrams of blood sugar by the Shaffer method and 1,000 milligrams by the Folin-Malmros method. We wish to add another case of marked hyperglycemia in beginning diabetic coma, rapid recovery from acetonuria and glycosuria, with sudden death from cardiac failure after discharge from the hospital.

REPORT OF CASE

A woman, age seventy-three, was referred to us on August 6, 1932, in a comatose state from which she could barely be aroused. Her physician, who accompanied her, stated that four days previously she became very drowsy and weak, could not be up and about, and retrogressed rapidly to her state on admission. Her husband stated that she did not seek medical advice although she had known of her diabetes for eight years, but dieted to the extent of eliminating sugars and sweet foods. She had eaten little food since her sudden attack four days previously.

On admission she was extremely drowsy, but the most striking feature was the marked acetone odor which permeated the room. She could be slightly aroused but would immediately return to her comatose state. Her temperature on admission was 97; pulse 124, very irregular and weak; respiration 22, without Kussmaul breathing. Blood pressure was 110/68. The eyeballs were moderately soft and jelly-like, the pupils being equal and regular and reacting to light. The heart sounds were weak and distant and irregular. No cardiac murmurs were heard. There were crepitant râles in the bases of the lungs. The abdomen was negative to palpation, the liver edge being felt at the costal margin. The extremities were cold and clammy and the ankles were swollen and pitted slightly on pressure.

The urine on admission revealed four plus sugar (Benedict's); acetone, four plus; diacetic acid four plus; albumen negative. The blood sugar (Pickard-Pierce) was 1028 milligrams per 100 cubic centimeters. Blood cholesterol and CO_2 combining power were not estimated in this emergency. It was apparent that there was a cardiac complication to the diabetic ketosis.

She was immediately given 100 units of insulin and was sufficiently aroused to sip a glass of sweetened orange juice. Since this was possible no intravenous glucose was administered. Every hour the urine was examined and insulin was administered hypodermically in dosages based upon the amount of urinary sugar present. On this basis, she was given 50 units of insulin and a glass of orange juice at 3, 4, and 5 p. m., the urine showing four plus sugar and four plus acetone. At 7 p. m. her urine showed two plus sugar and one plus acetone. She was much brighter and her pulse began picking up in volume and regularity. She was given 50 units of insulin at this time and the 8 o'clock administration withheld, since we were amazed at the rapid action of the insulin, especially with so high an initial blood sugar, and we did not want to embarrass the myocardium by dropping the blood sugar too low. At 9 p. m., seven hours after admission, her urine showed one plus sugar and a trace of acetone. The blood sugar was taken one-half hour later and found to be 108 milligrams per 100 cubic centimeters (Pickard-Pierce). The blood sugar determinations were carefully checked because both were so startling. No further insulin therapy was given. The patient could now be easily roused but preferred to lie quietly and sleep. The urine remained sugar and acetone free until the day following admission at 10 p. m. During the night she frequently sat up in bed complaining of shortness of breath, although her pulse was stronger than on admission and fairly regular. She was given fluid food the day following admission, soft foods the third day, and on the fourth received a soft diet of 1,200 calories, 50 grams protein, 77 grams carbohydrate and 77 grams fat, with 20 units of insulin before breakfast and 10 units before the evening meal. We permitted the urine to show sugar on the third day as long as acetone bodies were not present. She was thereafter given increasing amounts of solid foods on the same diet order as above. She remained acetone free throughout the month of her stay in the hospital and occasionally showed a trace to one plus sugar. We gave no more insulin than a total of 30 units a day. During her third week she was placed on a 1,500 calorie semisolid diet, 60 grams protein, one part carbohydrate to one part fat, with 30 units of insulin a day.

Active digitalization was begun on the day following admission, and while there was improvement in her pulse and heart sounds, dyspnea persisted. Her fluid output slightly but consistently lagged behind her fluid intake despite diuretics, with the consequence that her legs slowly and progressively accumulated fluid until there was moderate pitting edema.

At the end of a month, during which time she had absolute bed rest, her family took her home by ambulance. We felt that her diabetes was satisfactorily and practically controlled, with a trace to one plus sugar in the urine, but the cardiac condition required prolonged bed rest, which the family insisted could be carried out at home. Her diet and insulin dosage remained unchanged. She died shortly after, due to cardiac collapse. Necropsy was not obtained.

COMMENT

The necessity of maintaining a slightly higher than normal blood sugar level in cardiac patients is well recognized. It is probable that the sudden

* From the Grace Deere Velie Metabolic Clinic, Carmel.

withdrawal of sugar in the blood embarrassed the already damaged myocardium in this patient. Yet, faced with a marked ketosis and impending coma with so high an initial hyperglycemia, active insulin therapy was indicated. We did not anticipate such a marked response to the insulin in this case, a drop in blood sugar from 1,028 to 108 milligrams in seven hours, with a total of 290 units of insulin, especially with glucose administered hourly. The patient was permitted to maintain a blood sugar level higher than the renal threshold after her rapid response to insulin was observed. We are not familiar with the details of the death of this patient after her discharge from our direct care except that cardiac decompensation became acute and marked and death supervened within a short time.

P. O. Box HH.

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3. Shepardson, H. C., and Anderson, E. M.: Endocrinology, 13:188 (March-April), 1929.

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FLEXIBLE ETHER MASK

By HARRY S. FIST, M. D.
Los Angeles

THE flexible ether-mask frame here illustrated was devised by the author in an attempt to prevent traumatism of the face during anesthesia.

This frame is made of light-weight coil springs about five-sixteenths of an inch in diameter, one oval piece and two attached cross pieces as sketched, fastened together with thread or wire. The clean gauze covers which fold over the frame may be held with safety-pins or stitched with needle and thread. The result is a practically indestructible ether mask which is safe, flexible and adaptable to the face.

1930 Wilshire Boulevard.

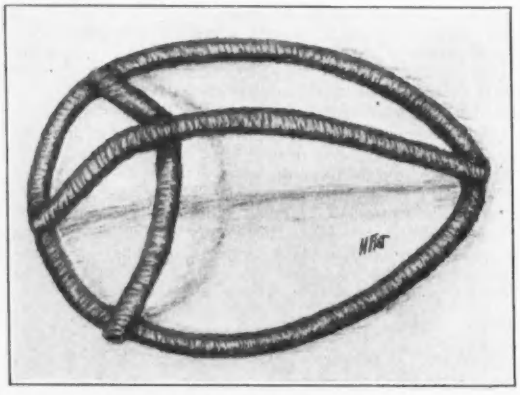

Fig. 1.—Drawing of flexible ether mask.

CORONARY OCCLUSION WITH HYPERLEUKOCYTOSIS*

By DON CARLOS HINES, M. D.
San Francisco

REPORT OF CASE

HISTORY.—Mrs. E. M., age sixty-one, a negro cook, was admitted to Lane Hospital February 23, 1931, with the complaint of "pain over my heart" for three days. The family history was irrelevant. She had always been "strong and rugged."

Several years previously she had begun to notice slight precordial distress when fatigued, and mild palpitation and dyspnea on exertion. In 1930 she began a progressively downhill course but continued her work. A month before entry dyspnea and general weakness forced her to bed, and she called a physician, who prescribed "green drops," evidently digitalis. This did not benefit her, and she noted orthopnea and attacks of nocturnal dyspnea. She remained in bed most, but not all, of the time.

Three days before admission she was awakened at night by an excruciating nonradiating pain in the left upper chest accompanied by extreme dyspnea, nausea, and a sensation of smothering to death. The extreme pain lasted an hour, and a griping sensation persisted for several days. She vomited many times and had diarrhea. Two days before admission she began to cough up small amounts of blood. There had been a weight loss of thirty pounds in the preceding year.

Condition on Entry.—Physical examination on entry showed a thin, worn, dyspneic, moderately prostrated negress of sixty years. The temperature was 38.2 degrees centigrade rectally, the pulse 82, respirations 30. The blood pressure varied from 150/90 to 110/70. There was moderate general and retinal arteriosclerosis. The neck veins were distended when the patient was sitting up. There was a heaving apex impulse in the fifth intercostal space in the anterior axillary line. Heart sounds were faint and were obscured by an extensive friction rub. The pulse was regular but variable in force. The lung bases were dull, especially the right, with faint breath sounds and showers of crackles. The abdomen was somewhat distended, with resistance and some tenderness in the right upper quadrant. Liver edge and spleen were not felt. There was no edema and no general glandular enlargement. A clinical diagnosis was made of arteriosclerosis with degenerative heart disease and coronary occlusion.

Laboratory tests showed: blood Wassermann negative; hemoglobin 74 per cent Sahli; erythrocytes 4.2 million; leukocytes 140,000 with polymorphonuclear neutrophiles 74 per cent, lymphocytes 2 per cent and myelocytes 24 per cent. The erythrocytes varied moderately in size and shape, and many showed a deep polychromasia. Aside from their large number, there was nothing about the leukocytes to suggest leukemia. Almost all of the myelocytes were mature neutrophiles. A table of subsequent blood counts is appended.†

Urine and stool were normal. Electrocardiogram showed a rate of 75, sinus rhythm, normal intervals, left axis deviation, and inversion of T-waves in lead 1. In a roentgenogram of the chest (taken March 5) the measured cardiac area was 38 per cent above the predicted, and calcification was seen in the arch of the aorta.

Progress.—Her course in the hospital was characterized at first by slow improvement. The temperature continued slightly elevated, often touching 38, and once reaching 38.6 (rectally). The friction rub disappeared, allowing a musical systolic murmur to be heard over the precordium and vessels of neck and arms. There was no sputum.

The pulse began an upward trend on February 28, reaching 100 on March 2, when she noted an increase

* From the department of medicine, Stanford University Medical School.

† I am indebted to Dr. R. C. Mermod for checking some of the differential counts.

TABLE 1.—*Blood Counts*

Date	R. B. C. Millions	Hgb. %S	W. B. C. Total	Differential in Number of Cells			Platelets
				Polys.	Lymphs.	Myelocytes	
Feb. 23	4.2	74	140,000	103,600	2,800	33,600	.....
Feb. 24	4.1	79	138,000	110,400	1,400	26,200	122,000
Feb. 25	....	....	112,000	70,600	4,500	31,400	.....
Feb. 26	4.0	77	115,000	76,000	4,600	33,300	143,000
Feb. 27	4.0	77	102,000	66,300	6,100	21,400	122,000
Feb. 28	4.3	81	107,000	76,000	5,400	20,300	511,000
Mar. 2	....	82	108,000	76,600	4,300	17,300	.....
Mar. 6	4.7	87	100,000	77,000	8,000	11,000	413,000
Mar. 7	....	....	140,000	95,200	8,400	28,000	.....

Date	Differential in Per Cent							Normoblasts per 100 RBC	Reticulocytes
	Polys.	Lymphs.	Myelos.	Basos.	Eos.	Monos.	Smudge		
Feb. 23	74	2	24	0	0	0	0	....	....
Feb. 24	80	1	19	0	0	0	0	6	5.4%
Feb. 25	63	4	28	0.5	0	0.5	4	....	....
Feb. 26	66	4	29	0	1	0	0	many	2.4%
Feb. 27	65	6	21	0	1	1	0	3	3.4%
Feb. 28	71	5	19	1	2	2	0	....	3.8%
Mar. 2	76	4	16	2	2	0	0	....	....
Mar. 6	77	8	11	2	0	2	0	....	3.2%
Mar. 7	68	6	20	3	0	3	0	....	....

in her persistent mild precordial distress. A gallop rhythm was present at times. On March 6 she had two attacks of extremely severe pain with dyspnea and cold sweating. The pulse jumped to 130 and the blood pressure, which had averaged 130-140/90, fell to 110/90. The following day she gradually became cold, the pulse slowed to 60 to 70, the blood pressure fell to zero, and in the course of a few hours she died.

Autopsy Findings.—Necropsy showed a small amount of clear yellow fluid within the pericardium, which was roughened by fibrin. There were easily broken adhesions over the left ventricle near the apex. The heart weighed 445 grams and was twice normal size. The valves and orifices were normal except for moderate calcification in the larger flap of the mitral.

The left ventricle was greatly dilated. The muscle was considerably scarred, soft, and of gray color beneath the pericardial fibrin deposits. It measured 11 millimeters in places but was thin toward the apex with one area only two millimeters in thickness. No recent gross infarction was visible. Microscopically there were moderate sized old scars and many large areas filled with young, highly vascular granulation tissue containing many round cells and plasma cells, the nearby myocardial fibers being swollen, degenerated, and vacuolated, with large pale-staining nuclei. The coronary arterioles were thickened, with fibrosis, hyalinization, and much calcification. The coronary arteries were narrow and calcified, with apparent occlusion of many branches. The base of the aorta and the walls of the sinuses were sclerotic, with heavy calcium deposits. The arch was similarly calcified and the intima wrinkled. The abdominal aorta showed a great degree of arteriosclerotic change and ulceration. Microscopic examination showed in addition moderately heavy perivascular infiltration of round cells and plasma cells about the vasa vasorum.

The lungs were not remarkable except for collapse and a few small areas of moist consolidation.

The spleen measured 12 by 9.5 by 6 centimeters, weighed 300 grams, and had a smooth surface. The cut section was deep purple with firm pulp projecting above the trabeculae. Microscopically there was dilatation and congestion of the venous sinuses with many prominent leukocytes. The fibrous reticulum was slightly thickened, the splenic corpuscles were small, and the walls of the arterioles were thickened, with fibrosis, hyalinization and partial calcification. Moderate numbers of large, granular brown-pigmented mononuclear cells were present.

The liver measured 22 by 18 by 8 centimeters, weighed 1520 grams, and showed moderate cyanotic atrophy. Microscopically there were areas of dilatation and congestion of the lobular sinusoids and central veins. There were numbers of round and plasma cells in the periportal spaces, and brown pigmentation and small fat droplets in the central liver cells. No leukemic infiltrations were seen.

The bone marrow of the ribs appeared normal. Dr. Harry A. Wyckoff examined smears and reported: "Polymorphonuclear leukocytes far exceed the normal number. Many of these approach the adult stage of development. Myelocytes are also numerous, but not in the striking excess shown by the polymorphonuclear cells. Myeloblasts are not so numerous as in normal bone marrow, and not many mitotic figures are found. Normoblasts are increased in number, and erythrocytes are plentiful. Megaloblasts are relatively few. Many of the megalokaryocytes seen show some degree of degenerative change and some are represented only by naked concentrated nuclei."

With the high leukocyte count in mind, Dr. William Ophüls examined the gross specimens and the microscopic sections and was unable to find evidence of leukemia.

The anatomical diagnosis included: arteriosclerosis, general; arteriosclerosis, local, coronaries, with old and recent myocardial lesions; arteriosclerosis, local, aorta; arteriosclerosis, local, renal artery, with scars in kidney; bronchopneumonia; pericarditis, serofibrinous.

COMMENT

Search of the literature discloses relatively few instances of leukocyte counts of more than 100,000 not associated with leukemia. Such cases as have been reported were almost exclusively in the presence of infection, notably in children and perhaps most commonly with pertussis. With coronary occlusion the highest count of which I could find record was 34,500 (Levine, S. A., and Brown, C. L.: Coronary Thrombosis, Medicine, 1929, 8:362, Case 4).

The case here reported is remarkable in: (1) that in such an otherwise typical picture of coronary occlusion there should exist as an isolated and persistent finding such a high leukocyte count; and (2) that with such a high count of twelve days' known duration there should be in the blood and in the blood-forming organs no evidence of leukemia.

Stanford University Medical School.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

ABORTION

William H. Gilbert, M. D. (746 Francisco Street, Los Angeles).—There is a wide difference of opinion as to the best method of treating abortion. Much of this is due to the fact that misunderstandings arise as to which phase of the condition is under discussion. Very often under the general head of abortion follow discussions of hemorrhage and sepsis, with no distinctions made between the different methods of treating each condition. As a rule, hemorrhage occurs early, while sepsis is a complication of a later date, and presents an entirely new aspect of the case. It has been said that hemorrhage is the only reason for operative interference and that all other abortions would clear up spontaneously if let alone. This is contrary to my experience and I believe it to be erroneous. After having tried the noninterference plan of treatment I have become convinced that it is followed by a much higher percentage of infections. This must not be construed, however, as a plea for operative interference in all stages of abortion. Meddlesome surgery is as dangerous in the early stages of gestation as when the fetus has gone to full term. The man who curettes all of his patients, irrespective of the state in which he finds them, will have a high mortality rate due to puerperal sepsis. Personally I am of the opinion that the two extremes, curettage of all patients, or curettage of none, have no place in the treatment of abortion. I believe, though, that the dead products of conception are better out of the human body if they can be removed safely. However, forceful and violent cervical dilatation, made with either the finger or instrument; vigorous and rough use of the sharp curette; packing the uterus very tightly with large quantities of gauze, in any stage of an abortion: these are types of operative interference which are almost sure to be followed by complications.

While it is surprising how much trauma and laceration nature will stand when due to normal delivery, she resents most emphatically a much less degree of roughness at the hands of man; and without doubt the disrepute that has attached itself to operative interference has resulted from the manner in which the early pregnant uterus has too frequently been handled.

For the sake of convenience let us classify abortion as septic and nonseptic. Quite a number of factors enter into the treatment of either type. Complications often make treatment extremely difficult. For instance, to empty safely an adherent, retroverted uterus with an undilated cervical canal, is sometimes a difficult procedure. A woman with diseased tubes and adhesions should be handled with the greatest care, as a disastrous or fatal peritonitis might result from undue manipulation of the uterus. In several instances in my own practice, the presence of fibroids in the muscular structure of the uterus has seriously interfered with the removal of the dead products of conception. Sometimes the uterus contracts in the middle, producing an hour-glass contraction, with the fetus, placenta, etc., implanted in the upper segment. These are conditions that should be given serious consideration, and to overlook any of them is to invite disaster.

Abortion when not complicated by interference—in other words, spontaneous abortion—is many times completed by nature, and unless the products of conception are not delivered, is rarely complicated by sepsis. The criminally induced abortion always carries with it the serious danger of sepsis, resulting from instrumental contusion and contamination of the cavity of the uterus or from the products of conception themselves.

Hemorrhage is always an indication for operative interference and should not be delayed too long, as exsanguination results in diminished resistance to infection. Many times the cervical canal is widely dilated and the fetus with the placenta and secundines lie adjacent to the inner portal of the uterine cavity, and their removal is a comparatively simple matter. Other times an injection of pituitrin is all that is necessary. If instrumentation is resorted to, it is always advisable under these conditions to forego the sharp curette and use either a blunt-nose sponge forceps or the gloved finger. I know of no agent more capable of cleaning the cavity of the uterus with so little harm as the gloved finger. Forcing its entrance into the cavity should never be done.

Because the gloved finger is the best curette under certain conditions does not mean that one is justified in trying to force a blunt, stub-nosed index finger through an insufficiently dilated cervical canal. The sad picture of an individual, with one hand behind the pubes while an assistant holds a volsellum which repeatedly pulls out of the cervix, trying to force the index finger into the cavity of the uterus, is not an uncommon one. Volumes have been written about the wonderful work that can be done with the finger as a curette, to all of which, under certain conditions, I agree, with the stipulation that there be sufficient dilatation of the cervical canal; and if sepsis exists, that there be no involvement of the appendages and parametrium. I am satisfied that the sharp curette has no place in our armamentarium. It can do nothing that cannot be accomplished with the dull curette and the blunt forceps. With either of these instruments, used cautiously, very little harm can be

done. The human being does not exist who can wield a sharp curette inside the cavity of the uterus and know whether or not he is damaging its walls or cutting through that oftentimes thinned-out structure. I am satisfied that more harm than good has resulted from its use.

Rapid and forceful dilatation of the cervical canal is a dangerous procedure; this is especially true if the Godell type of instrument be used. Once its curved expanding jaws open within the uterine cavity, no man can tell exactly what will happen. Numerous instances of ruptured uteri have been reported. As a consequence a previously uninfected abortion is converted into a condition which may require a hysterectomy in order to save a life. If the Godell dilator is used, great caution must be exercised in opening its jaws. It is far better to dilate slowly and carefully with graduated sounds of the Hegar type.

With the emptying of the uterine cavity comes the question of intra-uterine irrigation and packing. Without doubt many cases of infected tubes and peritonitis result from following either of these procedures. I believe the sharp curette and the intra-uterine irrigating nozzle should be relegated to oblivion. Their very existence in one's tool kit is a menace. Packing the uterine cavity under certain conditions is a very useful procedure. As a means of controlling hemorrhage it has no superior. It should never be too tightly done, and in order to be accomplished successfully there must be sufficient enlargement of the cervical canal. The uterine walls can be easily punctured by a dressing forceps carrying a strip of gauze. I believe that uterine irrigation and tight packing are common causes of endometrial implants in the abdominal cavity.

The treatment of infected abortions depends upon the stage of the infection. Operative interference is justifiable early in its existence. Once the uterus is infected, greater care must be exercised than at any other time. Nature becomes very busy at this time, erecting a local and constitutional defense wall against the infection. It is of the greatest importance that the local defense line be not disturbed or broken up. If the infection and inflammation can be confined to the uterine body, the chances for recovery are greatly enhanced, and the prospect of damage to the other organs is lessened. Once the infection has spread into the parametrium and the ovaries and tubes, with resultant localized peritonitis, it is extremely dangerous for one to attempt operative interference within the cavity of the uterus. By this time sapremia and more or less septicemia exist, and the treatment should consist of aiding nature in the fight against the infection. If ever there is a time to proceed cautiously, it is now. Watchful waiting, with application of an ice bag, rest in bed in the Fowler position, relief of pain, and proper feeding, will many times carry the patient through the stormy period. When the infection spreads into the parametrium, abscesses both within and adjacent to the tubes often form. Once a diagnosis of this condition is made, a posterior colpotomy is justifiable; care being taken, however, not to break through the layer of plastic lymph nature has thrown over the inflamed area. If this is disturbed or broken through, general peritonitis may result. There is often persistent vomiting. This is generally relieved by gastric lavage and use of the Connell apparatus for duodenal drainage. I am satisfied that this agent is a wonderful factor in affording comfort and saving lives of these patients. Outside of morphin for relieving pain, medical treatment is of little avail. Constipation generally exists, but cathartics are never advisable. A loop of ilium can be brought through the abdominal wall, and drainage instituted for the relief of obstruction and tympanites. This, however, is rarely necessary if the Connell apparatus is used immediately on the onset of vomiting. Its introduction should never be delayed; its early use may save the patient's life. Intravenous injections of mercurochrome have not been successful in my hands. Blood transfusions and intravenous injections of normal saline and glucose are of great value. Operative interference through the abdomen is rarely successful if attempted during the acute stage of the disease. As a rule infections of this kind run a limited course. Once the blaze has subsided, operative procedure may be indicated and justified.

* * *

JOHN W. SHERRICK, M. D. (350 Twenty-Ninth Street, Oakland).—In the treatment of abortion there are involved certain general principles which apply to practically all cases, but it is most important to individualize and to bear in mind the particular type of abortion and any complicating features with which we are dealing. We are concerned in this discussion, then, with six types of abortion, namely, habitual, retained, threatened, inevitable, incomplete, and infected abortion.

The keynote of the treatment of any type of abortion is intelligent conservatism characterized by bed rest, sedatives, and general supportive measures. This precludes the use of enemas, drastic cathartics, and rough abdominal or pelvic examinations. However, many of these patients sooner or later should be subjected to a gentle vaginal inspection under strictly aseptic precautions. Interference is instituted as demanded by the particular details of a given case and its complicating features.

Habitual abortion presents often a most perplexing problem and should be treated primarily by prophylaxis. This implies exhaustive study and treatment of the patient and her husband for such complications as syphilis, chronic infections, general debilitating diseases, anemia, endocrine and metabolic dysfunction, local pelvic pathology, toxic factors of various types. It is particularly important to abstain from coitus in the early months until the uterus is well out of the pelvis, and in some cases it is better avoided during the entire pregnancy.

Retained abortion presents no particular problem. The condition should be dealt with in only one way, namely, gentle but thorough curettage,

except in the presence of infection of the uterine contents.

Threatened abortion characterized by the usual classical symptoms of pelvic distress, backache and bleeding of variable degree, is treated by complete bed rest, sedatives, and general supportive measures. If the condition progresses to a state where there is free hemorrhage, cervical dilatation and rupture of the membranes, which brings it into the category of the incomplete inevitable abortion, assistance is given as indicated by the particular case. Such a patient should be hospitalized and the cervix inspected to determine the presence of protruding placental fragments and retained clots. Pituitrin is most useful here to aid the uterus in throwing off its contents. If, however, there is free bleeding or prolonged hemorrhage of moderate or even small amounts, or severe distress with no immediate prospect of relief, we favor careful curettage under gas anesthesia to save loss of blood with its debilitating effects that favor sepsis and other complications.

Infected incomplete abortion should be treated with intelligent conservatism, characterized by complete bed rest, semi-Fowler's posture, fluids, adequate nourishment, sleep, ice bags or heat as preferred, relief of pain, general supportive measures, ergot. Curettage here is justified only in event of prolonged or excessive hemorrhage, but this does not preclude careful inspection of the cervix and the removal with a sponge forceps of tissue masses or clots that may be protruding into or from it. In event of pelvic abscesses developing, vaginal drainage through a posterior colpotomy opening may be necessitated later. Here one must avoid undue trauma with its attendant danger of spreading infection to the abdominal peritoneum. Gastro-intestinal symptoms must be dealt with on their own merit, such as gastric lavage, duodenal drainage, etc. Intravenous therapy is limited to transfusion of whole blood, saline or glucose solutions, which measures are often of the greatest benefit. Scarlet fever antitoxin may be used to great advantage in the presence of conditions such as hemolytic streptococcus infection with its marked toxicity, high temperature, rapid pulse, great fluid depletion, blood destruction, extensive cellular infiltration.

Our attitude toward abortion then is one of conservatism and watchful waiting, with the institution of interference as justified by intelligent observation. First, oxytocics to improve the tone of the uterus and aid its emptying in incomplete abortion and routinely after its cavity is emptied. Second, curettage in the noninfected retained abortion and in the incomplete abortion, whether infected or not, in the presence of prolonged or excessive bleeding. In case of doubt in this particular instance, we prefer to err on the side of radicalism. Third, general supportive and special measures as warranted in any particular problem.

Where interference is indicated, we favor curettage and the use of a blunt-nosed sponge forceps, but not the use of a cervical and vaginal pack. We have no hesitancy in using a medium type of curet, neither dull nor sharp, but we do try to avoid too vigorous scraping and excessive pelvic manipulation as well as too forceful and too extensive and, therefore, damaging dilatation of the cervix. For this latter reason we rarely, if ever, attempt to cleanse the uterine cavity with the gloved finger.

One cubic centimeter of pituitrin is administered routinely before curettement to give tone to the uterine musculature and thus render it less liable to perforation by the curet. We use the Starlinger uterine dilator followed by the Godell instrument, the force being controlled by the sense of touch, thus avoiding too forcible dilatation with extensive cervical damage. The uterine cavity is sponged routinely with an iodin pack immediately following curettage. Occasionally we resort to irrigation of the uterus with an antiseptic solution at 115 degrees. This evacuates shreds of tissue and clots and is an excellent aid in increasing uterine tone.

The presence of complicating pelvic pathology such as fibromata, diseased tubes, ovaries, etc., does not materially alter our immediate treatment of abortion as we prefer to follow the general plan outlined above, leaving these factors for later consideration whenever possible.

* * *

PHILIP H. ARNOT, M. D. (490 Post Street, San Francisco).—There is no absolute rule that one can follow in treating an abortion case. However, a good working rule is to keep these patients flat in bed, give them a sedative such as codein, paregoric and viburnum, or morphin, and await developments. No one can tell whether the fetus is dead or alive, even in cases with moderate bleeding, so, I believe it is best to give the fetus the benefit of the doubt as long as there is no risk to the mother. In a rather large percentage of threatened abortions the bleeding will stop with bed rest and sedatives and the patient will go to term and have a perfectly normal child.

In most cases after the fetus dies the entire products of conception will pass spontaneously within a few days, and hence curettage will not be necessary. In a smaller percentage of cases there will be fever or hemorrhage or a dilated cervix with the products easily felt in the cervix or there will be a question if all of the products have been passed. What to do with these patients?

A patient who has bled or is bleeding enough to show signs of anemia should have the uterus evacuated as quickly as possible. If hemorrhage has been real severe a transfusion of blood will not only combat shock but will help build up the patient's resistance to infection.

Fever in the great majority of cases is due to a so-called putrid or saprophytic endometritis. This is not a true infection of the uterus, but is an infection of the dead and necrotic products of conception and decidua which are retained within the uterus. The infection of this material produces toxalbumoses and ptomains, which irritate the endometrium and excite a tissue reaction. The usual organisms are anaërobic streptococci and

Bacillus coli. The fever is usually high (101 to 104 degrees Fahrenheit), there is much perspiration, generalized aching and malaise and moderate tenderness of the uterus. Immediate evacuation of the uterus is indicated and is usually followed by a rapid drop in temperature, reaching normal in four to six hours.

In cases where the cervix is dilated and the products of conception can be felt and where there is no fever or hemorrhage, it is best to give pituitrin (one-half of a cubic centimeter every hour for four doses) and ergot with the hope of forcing the products out of the uterus. This will work in many cases, but if it has not at the end of twenty-four hours, the uterus should be evacuated.

In some cases, particularly around three to four months, a patient will pass just the fetus or only a small piece of the placenta so that one is sure that the uterus is not completely emptied. Unless fever or hemorrhage demands immediate evacuation it is best to try pituitrin and ergot for twenty-four hours before resorting to surgery.

There is always a question what to do in cases with a definite peritonitis or a septicemia. With peritonitis present I believe that the uterus should be left alone and all efforts bent toward treating the peritonitis—ice bags on the abdomen, intravenous glucose and subcutaneous saline, sedatives and the Connell suction apparatus in case of vomiting. However, severe hemborrhage would justify operative interference.

With septicemia present I feel that the uterus should be emptied only in case of hemorrhage or where the products can be felt within the open cervix or where one is sure that the uterus is not completely empty. Blood transfusions help, along with sedatives, fluids, and general supportive treatment. I have used intravenous mercurochrome in one case, but with no success.

As to the operation or method in emptying the uterus, I prefer to call it an evacuation of the uterus rather than a curettage, as I do not use nor advocate the use of a curet. One can use a sponge stick or a fenestrated forceps and completely clean out the uterine cavity. The uterine cavity is then swabbed with tincture of iodin and a plain gauze pack is inserted and removed in twelve to twenty-four hours. No intrauterine irrigation is advisable. The cervix seldom needs any dilatation, but where it is necessary the graduated dilators, such as Hegar's, are used to gently dilate the cervix.

Rarely one may have a parametrial, tubal, or cul-de-sac abscess, which should be opened and drained through a posterior colpotomy opening.

Ergot should be given in all postoperative cases for about three days, and in all septicemia and peritonitis cases.

Last but not least, do not forget the legal angles to this subject. Have consultation, if possible, on any patient that you have to operate or that is dangerously ill and be sure to report all such cases to your local police. This is for your own protection and should be done regardless of whether it is a spontaneous or an induced abortion.

New Regulations for the Practice of Medicine in Buenos Aires.—The national department of public health has presented a proposed law to the Secretary of National Affairs for the regulation of the practice of medicine. The project will be presented to the house of representatives. The following regulations are proposed: that the only persons authorized to practice medicine or any of its branches are those who have a national diploma or a foreign diploma duly legalized. Foreign physicians with a legal diploma may be authorized to practice in places where there are no legal national physicians, when they have a diploma given in a foreigh school, not as yet recognized in Argentina. In this case, however, if a legal national physician comes to that place, the right to practice belongs to the national and not to the foreign physician. Foreign physicians who want their diplomas legalized should take an examination of all subjects studied during the entire course of medicine, and then they must pay 4,000 pesos (about $1,040) for their licenses. The law would apply to the practice of medicine, dentistry and obstetrics and to roentgenologists, hypnotists and other psychotherapists. Any advertising by physicians and any other persons practicing has to be authorized by the national department of public health. It is considered illegal to specify the time it may require for any cure, to say that any cure is infallible, to use secret or mysterious remedies, and to publish false or inexact statistics compiled from methods used. No physician is allowed to practice pharmacy and medicine simultaneously. Physicians, dentists or veterinary physicians who in any way are engaged in the preparation or sale of specifics, either as owners or as stockholders, are not allowed to practice their professions. However, physicians are authorized to enter into association with capitalists to establish sanatoriums as long as the capitalist does not interfere in any clinical or technical work of the sanatorium. The sharing of fees by physicians, as well as the remuneration given to them from drug stores, opticians and orthopedists, and any other conventional arrangement for the mutual benefit of the physician with some other person or institution, is forbidden. The law considers it advisable that nurses, masseurs, dental mechanics, clinical laboratories, sanatoriums, maternity hospitals, medical and physical therapy clinics and eye clinics, should be under special regulations. This bill has been presented to congress for consideration. The laws that now govern the practice of medicine were made long ago and do not deal with certain problems of modern practice.—Buenos Aires *News Letter. (Journal of the American Medical Association.)*

Diagnosis and Management of Senile Prostate.—Young is convinced that in prostatectomy the perineal route is not only technically the most satisfactory but also the safest. It is accompanied by a mortality much less than can be obtained through the suprapubic route, whether the operation is done in one or two stages. The author presents an analysis of 197 consecutive cases of perineal prostatectomy without a fatality. This operation permits the surgeon to see the prostate, to examine minutely any region suspected of being malignant, to carry out operation under visual inspection, and to provide for complete hemostasis and good dependent drainage. These attributes make the perineal route unquestionably the method of choice, and are responsible for its greatly lower mortality.—*Southern Surgeon.*

Pathologic Changes in Tonsils.—Rhoads believes that in many cases simple inspection reveals sufficient evidence for the removal of tonsils. In most cases, however, it is of little importance as compared with the evidence adduced by a careful history, ordinary laboratory examinations, and a painstaking physical examination. Teamwork by the internist and the otolaryngologist is required. If the general examination reveals a systemic disease that is usually associated with focal infection, and other more obvious foci are not discovered, the tonsils should be regarded as probable sources of infection regardless of their external appearance.—*Archives of Otolaryngology.*

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Leaflet Regarding Rules of Publication. — California and Western Medicine has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this journal write to its office requesting a copy of this leaflet.

EDITORIALS*

THE DEL MONTE ANNUAL SESSION—NEW OFFICERS

Reports of Del Monte Session Will Be Printed in June California and Western Medicine.—The usual date for closing the receipt of copy for an issue of CALIFORNIA AND WESTERN MEDICINE is the twentieth of each month. This year the sixty-second annual session of the California Medical Association was held on April 24-27. Therefore it is not possible to print much news concerning that session because the May CALIFORNIA AND WESTERN MEDICINE will be in press during the time the session is being held.

In spite of adverse economic conditions, the officers of the Association have been hoping for a large attendance at Del Monte. The program printed in the April CALIFORNIA AND WESTERN MEDICINE indicated the splendid standard of the general meeting and scientific section programs. A special effort has been made to secure in advance some of the guest-speaker papers, to insure publication in this May issue. At this time, in anticipation, to all who had places on the program and to all who by their presence and aid made it possible for this year's annual session to go over in successful fashion, the thanks of the Association are extended.

According to custom, the place of next year's annual session will in all probability be decided upon before the close of the last meeting of the House of Delegates. In that event, the time and place of the next annual session will be printed at the top of the front cover of this issue. If you are of those who did not find it possible to go to Del Monte this year, it is hoped that at next year's session you will be registered as among those in attendance.

* * *

Good Wishes to Retiring President Joseph M. King and to President George G. Reinle.—The California Medical Association extends to Dr. Joseph M. King of Los Angeles its appreciation of the services he has rendered during the last year in visiting many of the component county societies and in helping guide the central organization along safe and constructive paths. The fiscal year which came to a close at Del Monte presented many new and difficult problems which needed clear thinking and wise judgment in their solution. In this work Doctor King gave of himself unsparingly. As he joins the group of former presidents, he has the good wishes of the members of the California Medical Association.

At the end of the session, President-elect George G. Reinle of Oakland took up the responsibilities of the presidential office. In days like the present, the turmoil of new conditions is as evident in the domain of medical activities as it is in our political and civil life. Doctor Reinle's long interest in medical organization work will make him a valuable leader in the continued study of some of the major problems of medical practice to which the California Medical Association has been giving special attention. He may be assured of the generous and loyal support of his physician colleagues.

* * *

Greetings to the New President-elect, Dr. Clarence G. Toland of Los Angeles.— The newly elected President-elect is Dr. Clarence G. Toland, one of the well-known surgeons of Southern California. Doctor Toland is an ex-president of the Los Angeles County Medical Association and has long been interested in medical organization work. As there were no other nominations, Doctor Toland was elected by acclamation.

* * *

Minutes of Council Meetings at the Annual Session.—In order to make it possible for members who were not in attendance at the annual session to get at least a partial orientation of the business proceedings at Del Monte, this issue of CALIFORNIA AND WESTERN MEDICINE will be placed in the mails several days later than usual. This delayed publication will permit the printing of the Council proceedings, with information concerning business acted upon and officers and committeemen who were elected. (See pages 386-395.)

* Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comments column, which follows.

Several officers of the Association made requests to be relieved from further service on the Council or on committees. Mention may be here made of three of such who, at this annual session, retired from the group of active official workers. Dr. O. D. Hamlin of Oakland, for many years the efficient chairman of the Council, because of many other responsibilities, requested that he be not reëlected. The new chairman of the Council is Dr. T. Henshaw Kelly of San Francisco. Two other members of the Council who have long given loyal and able service to the Association and who requested that their names be not placed in nomination were Drs. William Duffield of Los Angeles and Robert A. Peers of Colfax. These and other officers who retired have the thanks of the Association for their past services.

It was voted to hold the 1934 annual session at Riverside, date to be announced later.

The total registration at Del Monte was a pleasant surprise, more than eight hundred members being in attendance. The Council minutes give additional information. The minutes of the meetings of the House of Delegates will be printed in the June CALIFORNIA AND WESTERN MEDICINE.

THE LEGISLATIVE SITUATION

Proposed Public Health Legislation Being Watched.—If space permitted, a summary or digest of some of the proposed laws having public health and medical practice relationships would be printed in this issue of CALIFORNIA AND WESTERN MEDICINE. The lists and data previously given must suffice, however, until reports from the Committee on Public Policy and Legislation will make it possible to give more detailed information to the readers of CALIFORNIA AND WESTERN MEDICINE.

All that has been previously stated in this column concerning the very large amount of proposed public health legislation and the heavy tasks which must be met by the representatives of the California Medical Association, still applies. For the time being, members who attend the Del Monte annual session must be depended on to carry back to their county societies the information given in the reports made at that session.

The newspaper press states that the legislature will recess some time in May, to reconvene later. Just what effect that new procedure will have on the course and final disposition of measures now under consideration in the senate and assembly is difficult to state. However, the representatives of the California Medical Association are alert to their responsibilities in these matters and may be depended upon to keep the component county societies in touch with all important changes.

ANTIVIVISECTION PROPAGANDA—SENATE BILL 674 (FELLOM)

Another Proposed Antivivisection Law for California.—On January 27, Senate Bill 674 was introduced by Senator Fellom. At this writing, there are eleven notations in the "Senate Weekly History" concerning senate actions taken thereon. The senate passed the bill and it has gone over to the assembly, where it was referred to the Committee on Public Health and Quarantine, Assemblyman William W. Hoffman of Oakland, chairman. A first hearing is scheduled for Wednesday, April 26.

The title of the bill is as follows:

"An Act to regulate the conduct of pounds, prescribing the duties of persons in charge thereof or employed thereat, and regulating the disposition of animals impounded or sheltered therein."

* * *

Misleading Nature of the Title of the Bill.—On perusal the above title seems innocent enough. The text of the bill, however, reveals that it is a typical antivivisection measure: one of these emanations which, if the proposed measure should by chance become a law, directly and indirectly would mean loss of human life in the days to come. All this because of the enactment into law of a misguided attempt on the part of the bill's proponents to presumably protect dogs, cats, and other dumb beasts from imaginary and cruel experimentation by scientific investigators and physicians. No one denies the honesty of purpose of some of the antivivisectionists. But by and large, that group must be judged not by well meaning though misled persons, but rather by the mawkish sentimentalists who close their eyes to human suffering and unnecessary death in order, in self-laudation to themselves and one another, to live in a self-constituted world of super-kindness to lower animals.

From the standpoint of scientific medicine and of real humanitarianism, as well as of kindly feeling and action to all members of the animal kingdom, it may be stated that some provisions of this proposed law are little less than vicious. The supporters of the measure are carrying on the usually aggressive and misleading campaign so generally in operation when so-called antivivisectionists appear in legislative hearings. It is not necessary in these pages to go into details concerning this year's antivivisectionist effort as expressed in Senate Bill 674. It is enough to know that research workers such as Karl Meyer of the Hooper Foundation of the University of California are a unit in opposing it, because of the havoc it would produce to scientific studies which are aimed at prolonging human life.

* * *

Excellent Criticism of the Antivivisectionist Propaganda by Chester Rowell, Esq.—Attention is here called to the splendid criticism which this proposed law drew from that well-known California publicist, Chester Rowell, Esq., of Berkeley, and which was printed in his "World Comment" newspaper columns. So excellent and unbiased is his portrayal of real facts, that CALIFORNIA AND WESTERN MEDICINE is printing his original article (and also the second article which he wrote when criticisms of his first article came to him) in order to give a place in the indices of medical literature to this masterful exposé of current antivivisectionist fallacies. (See page 352.)

The thanks of Californians, who love their human fellows and lower animals as well, are extended to Chester Rowell for this voluntary service which he has so ably rendered to the citizens of his state and country.

* * *

An Example of Antivivisectionist Propaganda. By way of contrast to the sane presentation of facts given by Mr. Rowell, reference is also made to a letter which a few days ago came to the editor and which is reprinted in the correspondence column of this issue.* With that letter several pamphlets full of misleading statements and illustrations were enclosed. They contain irresponsible assertions such as are referred to by Mr. Chester Rowell in his articles. Members of the profession who wish to get a first-hand knowledge of the kind of literature distributed by the National Antivivisection Society, 58 East Monroe Street, Chicago (from which the referred to letter was received), will probably receive samples of such by making request to that organization for some of their antivivisectionist literature. The following, a black-face type footnote to one of the pamphlets, tells its own story:

"*What Is Vivisection?—Vivisection is the practice of subjecting living animals to cutting operations, inoculation experiments and other experimental treatments such as baking animals alive, sex gland tortures, pouring boiling water into intestines, suspending dogs by ears, and removing nerves, putting mustard oil in cat's eyes, etc., etc. Usually these experiments are performed without the use of anesthetics."

The sad part of the story is that such stuff is sent out to many citizens, and is accepted as being the truth by some. It is regrettable that copies of Mr. Rowell's comments cannot be sent to all persons on the mailing lists of California antivivisectionist organizations.

EDITORIAL COMMENT†

RELAPSING FEVER—A NEW ETIOLOGICAL OBSERVATION

As its name implies, relapsing fever is an acute infectious fever characterized by recurrent attacks, separated by afebrile and otherwise symptomless intervals. This disease is endemic in certain countries and at times becomes epidemic, as noted in Serbia during the Great War, numbering twelve thousand cases, the vector in this incident being the louse.

Relapsing fever and typhus are frequently associated and are both apt to occur during periods of depression, war, overcrowding and famine. David Livingston, in 1837, found in South Africa that a peculiar relapsing fever occurred following the bite of a tick. Tick or relapsing fever spreads along the caravan routes in Africa and Asia Minor and occurs sporadically in Panama, Mexico, and Southern California.

The infective organism is due to a large spirillum discovered by Obermeier in 1868, a spirochete of the genus Spironema. It has been definitely determined that the mode of transmission is not by the direct bite of the louse but by the liberation of the spirochetes due to the accidental crushing of the infected vector by the host. Bedbugs or blood-sucking insects biting an infected patient during the febrile state may transfer the spirochete to a well person if bitten. The life cycle of the Spironema in man is about a week, multiplying so greatly that in severe cases they become as numerous as the red cells. This stage lasts several days, then disappears completely from the peripheral circulation (so that none may be found by smear) for about a week, then a recurrence, with reappearance of the spirochetes. This cycle may take place several times. During the apyrexia stage they are present in the spleen, where they may be actively phagocytized, eventually to be destroyed by the antibodies of the host. The vectors are the body and head lice and a species of tick belonging to the genus Ornithodorus. In the United States a member of this specie is found in Texas, Mexico, and California.

In the case report* submitted by the writer the genus Ixodes, possibly the transmitter of the spirochete, was found on the infected rodents whose blood showed positive findings and which succumbed to the infection.

University of California.

ROBERT T. LEGGE,
Berkeley.

CONTRAINDICATED VACCINES

IV†

Ten years ago few immunologists questioned the logic which led to extensive clinical trials of specific pneumococcus vaccines as adjuvants in the treatment of acute lobar pneumonia.

Theoretical objections, however, were raised by the experimental studies of Doctors Felton and Bailey[1] of Harvard Medical School. The Boston investigators found that the injection of certain pneumococcus polysaccharids into laboratory animals so lowered their normal resistance to the corresponding type pneumococcus as to magnify by a hundredfold the usual percentage mortality from simultaneously injected pneumococcus cultures.

This finding has been confirmed by Doctors Sia and Zia[2] of the Peiping Union Medical School, in whose hands the postvaccination "negative phase" following injection of unpurified pneumococcus filtrates led to a ten-thousand-fold increase in specific pneumococcus susceptibility. In their control tests the Chinese investigators found that when small doses of low-virulent pneumococci are injected intravenously into rabbits the organ-

* Letter is printed on page 402.

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California and Nevada Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

* The reports referred to are printed in the case report department of this issue (see page 370).

† Part I of this series was printed in the February CALIFORNIA AND WESTERN MEDICINE, page 116; Part II in March, page 188; Part III in April, page 275.

1 Felton, L. D., and Bailey, G. H.: J. Infect. Dis., 38:131, 1926.

2 Sia, R. H. P., and Zia, S. H.: Proc. Soc. Exper. Biol. and Med., 29:791 (April), 1932.

isms rapidly disappear from the blood stream, the animals showing few, if any, demonstrable symptoms. The same doses, however, injected into rabbits previously treated with homologous pneumococcus filtrates led to a rapidly increasing bacteremia which usually terminated fatally. This fatality increase could be simulated in nonvaccinated rabbits by multiplying the routine test dose from ten thousand to one hundred thousand-fold.

Since results of this type apparently contraindicate therapeutic pneumococcus vaccines in the early stages of lobar pneumonia, Dr. Victor Ross [3] of the Department of Health, New York City, turned his attention to the feasibility of orally administered pneumococcus polysaccharids. Oral vaccines of this type will immunize rats. Specific serological analyses of the blood, urine, and feces of rats thus immunized led him to believe that practically all of the ingested polysaccharid is eliminated in the feces. As much as 85 per cent of it was recovered from this excretion source. Assuming that absorption into the blood stream is a necessary factor in the production of the clinically undesirable "negative phase," Doctor Ross concluded that oral administration of specific polysaccharids is at least relatively safe during the early stages of acute lobar pneumonia.

Laboratory scientists are particularly interested in Doctor Ross's suggested theory that certain cells of the gastro-intestinal mucosa are active in specific antibody production, and can be stimulated to this internal secretion by mere contact with certain specific vaccines. This theory finds some support in the recently postulated "contact transformation" of intracellular enzymes by certain colloidal chemists.[4] Many theorists, however, would challenge the earlier implied clinical conclusion from "negative-phase" data obtained from highly susceptible laboratory animals. The conditions may be quite different in clinical immunity. Year-long contact with various pneumococci and reciprocal environmental antigens (*e. g.,* with certain fairly common wild yeasts) have already presumably established fairly effective specific pneumococcus immunity in adult man. Under such conditions the "negative-phase" of nonresistant animals may well be replaced by a therapeutically valuable "Hektoen phenomenon," or "allergic cellular response."

Final judgment as to the clinical value of specific vaccine therapy in acute lobar pneumonia cannot be drawn from lower animals.

Stanford University.

W. H. MANWARING,
Palo Alto.

A TYPE OF MIGRAINE ASSOCIATED WITH HYPOCALCEMIA*

Idiopathic migraine is becoming a smaller and smaller group as various etiologic factors are being determined. The relation to allergy in a number of these unfortunates is well known and has been recently emphasized by Rowe. The infectious factor particularly, as related to foci around the distribution of the fifth cranial nerve, also is well recognized.

For two years I have been impressed with the frequency of mild tetanic symptoms associated with these attacks in a certain number of these unfortunates. In this group hyperpnea induces tingling of the extremities and very often there is a positive facial phenomenon. We have observed in the more severe cases actual carpopedal spasm. The blood calcium in this particular group of patients has been found moderately low, *i. e.,* from 6 milligrams to 8½ milligrams per 100 cubic centimeters of blood—the normal being around 10 milligrams or 11 milligrams. Where the calcium is low the attacks have been suppressed by the oral administration of viosterol or the parental administration of parathormone.

The association of migraine with epilepsy has been frequently emphasized in the past. Recently acidosis treatment has been instituted in the therapeusis of the latter condition. It is also recognized that acidosis increases the ionizable fraction of calcium in the circulation.

It is not assumed that all cases of migraine fall into this category, but the work has yielded some very interesting therapeutic results. A complete report of this work will be published in the near future.

350 E Street.

G. F. NORMAN,
Eureka, Calif.

[3] Ross, V.: J. Exper. Med., 55:13 (Jan.), 1932.

[4] Alexander, J.: Protoplasma, 14:296, 1931.

* A preliminary report.

Consultants and Specialists for Panel Patients.—The national insurance system provides only a general practitioner service for panel patients. The provision of a consultant service has often been discussed, but the financial depression has proved a barrier. Panel patients can of course obtain the services of consultants by paying for them, and the British Medical Association has prepared a scheme by which this can be done at a modified fee. The closest coöperation will be maintained with the patient's panel physician, whose approval will be necessary and to whom the consultant's opinion will be communicated. A consultant's list of consulting physicians and surgeons in London whose advice will be available for a fee of $5 has been drawn up by the association. The list contains more than four hundred names and includes every kind of specialist. A similar reduction of fee has always been possible for necessitous patients. But the scheme has the advantage that the attending practitioner will not have in each case to correspond with the consultant in order to arrange for a reduced fee. At present either this is done or the patient attends the outpatient department of a hospital and the consultant receives nothing for his services. Under the scheme the patient will be saved the great waste of time involved by attendance at a hospital. A number of benefit societies have already established for their members a list of consultants willing to see members at a reduced fee. But the British Medical Association objects to such lists on the following grounds: (1) The list is a closed or restricted one, controlled by a nonmedical organization. (2) The circulation to members of a particular society as to the arrangements is contrary to the dictum of the General Medical Council. (3) There is no income limit, except so far as this is represented in the status of the particular society. In view of the list of consultants established by the association, on which all physicians who satisfy the required criteria may be placed, it is hoped that such closed panels will be abolished and that physicians associated with them will have their names removed.—London *News Letter. (Journal of the American Medical Association.)*

C. M. A. DEPARTMENT OF PUBLIC RELATIONS

An open forum for progress notes on the department's activities, and for brief discussions on medical economics. Correspondence and suggestions invited. Address Walter M. Dickie, Room 2039, Four Fifty Sutter Street, San Francisco. This column is conducted by the Director of the Department.

Tentative Guiding Principles for Group Hospitalization*

Group hospitalization should be organized so as to benefit the three groups concerned—the patients, the hospitals, and the medical staffs.

1. Benefit to the patient is the aim of hospital service, and group hospitalization plans should be established with this public service in view. The primary purposes of group hospitalization should be to enable persons of limited means who value their independence to pay for their own hospital care, and to make possible the systematic inclusion of hospital costs in family budgets.

2. Hospitals should be adequately remunerated. They should be paid reasonable sums for services rendered to patients under group hospitalization plans; "reasonable sum" means a sum approximately equal to operating costs, but need not be unduly fixed charges. In any event the subscriptions should more than cover the service costs incurred on behalf of the subscribers. Profits should not be sought under this system.

3. Group hospitalization should be so administered as to encourage high standards of medical care.

4. Participation by hospitals in group hospitalization should be coöperative rather than competitive. Group hospitalization plans should, therefore, include all hospitals of standing in the community.

5. Group hospitalization plans should not be commercialized. Skilled and experienced guidance is required in actuarial matters and the promotion and business management of such plans, but administrative expenses should be kept within the narrowest limits compatible with such service. Hospitals should not enter into contracts with business agencies which have the finances and management of such plans wholly under their control.

SUGGESTED PROCEDURES FOR GROUP HOSPITALIZATION PLANS

1. *Exclusion of Professional Fees.*—Subscribers will be accepted for hospitalization only upon recommendation of a physician. The plan should not interfere with patient and physician or physician and hospital. Group hospitalization plans are not intended to cover any but hospital charges and should not include payments for services rendered by private physicians.

2. *Choice of Hospital by Subscriber.*—The group hospitalization plan should be such as to render its benefits available in any participating hospital selected by a subscriber to which his physician has access or is acceptable.

3. *Admission and Treatment of Patients.*— Patients under group hospitalization plans should be admitted in the usual manner at the initiative of their physician and should be cared for under the regular hospital rules governing professional services. The arrangement of professional fees between physician and patient should be regarded as a private matter not affected by the plan. The plan should be so devised as to avoid requiring hospitals to change their established polic s with reference to medical staff or medical classes f patients admitted.

4. *Grouf Preferable to Individual Subscribers.*—The enrollmen of individual subscribers requires higher costs in in tiating and administering the plan and fails to develop a feeling of group solidarity. If subscribers are individually enrolled, they should be accepted only upon voluntary application and should generally pay a higher subscription rate in fewer installments. So far as possible the plan should be based upon arrangements made with subscribers regularly employed as members of already associated or organized groups.

5. *Employed Persons.*—In some cases employed persons become eligible only after a definite period (one month to three months) of employment. Physical examinations are not required where large groups are simultaneously enrolled.

6. *Waiting Period.*—Benefits accrue only after a waiting period (one to two weeks) from the time the membership begins. Where subscribers are individually enrolled, the waiting period should be somewhat lengthened.

7. *Hospital Benefits.*—In so far as possible the annual subscription should cover all hospital charges to a patient. All routine hospital services should be included as a minimum, and special or additional charges should be eliminated as much as practicable. Extra charges for diagnostic and "special" services discourage prospective subscribers, and fail to provide protection for the patient on important costs. Benefits do not as a rule include hospital service of a kind not ordinarily rendered by community hospitals; thus acute venereal diseases, pulmonary tuberculosis, quarantinable diseases, and mental diseases are usually excluded; obstetrics may be included after a reasonable waiting period.

8. *Stages in the Development of a Group Hospitalization Plan.*—(*a*) There are three stages in the development of a plan. First, what may be called the technical stage, during which the hospitals themselves, with such legal and other advice as may be required, determine upon the services to be offered and the rates which they believe to be practical. Second, the promotional stage during which this plan has to be organized in working form and accepted by groups of persons who are ready to pay for the services offered. Third, the administrative state when the plan is actually in operation and must be capably managed.

(*b*) In a community with only one hospital, what is referred to above as the technical stage should be developed by the governing body of the hospital, with the counsel of its medical staff.

(*c*) In communities with more than one hospital of good standing the initial stage of the plan should be carried through by a representative group of organization of hospitals themselves with the counsel of physicians of standing representing the hospital staffs and, if possible, the local medical societies.

9. *Effective Presentation to the Public.*—The problems of promotion and of enrolling groups of subscribers are not ordinarily familiar to hospital personnel and generally will require the participation of expert and experienced persons. In some instances it may be best to appoint a private agency, specializing in such work, to render service or to furnish persons who will render expert services, but payments to such agency should not be such as to diminish unduly the benefits received by subscribers. The control of the plan, as well as the direction of activities incidental to it, must remain in the hands of a group organized by or through the hospitals, on a nonprofit basis, and must not be transferred to an enrolling agency.

10. *Legal Advice.*—During the first or technical stage, group hospitalization plans should be discussed with competent legal counsel in order to insure that they conform to the laws of the state and locality. Insur-

* Reprint of an article by C. Rufus Rorem, Ph. D., in *Western Hospital Review*, March, 1933.

ance Commissioners in more than a dozen states have ruled that hospital service rendered to subscribers on an annual payment plan is not insurance.

11. *Finances.*—In existing group hospitalization plans, from $6 to $12 per year is the range of rates charged. The amount required will vary with the general cost levels of the locality, with the scope and character of services offered, with the age and occupational character of the subscribers, and according to the requirements for promotion and administration.

A time limit on the length of stay of all patients in the hospital during any given illness is usually requisite and is usually a three-week period. In order to forestall the distintegrating effects on the plan of widespread disaster, it is usually provided that in case of such an event the hospital rendering the needed service should reimburse the subscriber with a specified amount, say an amount equal to the annual subscription (in a few instances twice this amount) if such subscriber must be denied admission.

When risk or expense is reduced by the enrolling of a large number of subscribers in a single group, or when the group is of such age or occupational class as to lower the risk, a reduction in the annual subscription rate may be allowed.

The basis on which hospitals are to be paid from the central fund should be alike for all, when similar services are offered to subscribers.

If estimates based upon past experiences indicate that the payments to be made will be sufficient to enable the fund to reimburse participating hospitals at a given rate per day (whether this be $5, $5.50, $6, $6.50, or $7) a fraction of this amount (50 cents to $1 per day) may wisely be withheld for distribution in whole or in part at the end of the fiscal year in order to insure an equitable administration of the fund in case the morbidity rate for the year should be unexpectedly high.

The only question arises, how about the possibility of malingering or undue utilization or abuse of the plan? Patients are accepted in the hospital only on advice of physician and usually the criticisms arise from physicians. The solution of the problem is in the hands of the physicians. This solution of group hospitalization to a continuing problem did not arise with the depression. It will not disappear with the return of prosperity, whenever that is. It is a practicel step to distributing cost, stabilizing hospitals, serving people of limited means.

CANCER COMMISSION OF THE C. M. A*

Report of Committee on Bone Tumors

CLASSIFICATION

The committee feels that a uniform classification is of major importance and recommends that the classification of the Bone Sarcoma Registry of the American College of Surgeons be used. This is recommended for general use in outline only, and the detailed classification should be left for those who, because of specialization, may be interested in details. Inasmuch as this classification is different from older ones, the previously employed terms are grouped under their respective present headings in order to make clear what this classification means in terms of older nomenclatures.

The *American College of Surgeons' classification,* with synonymous terms, follows:

1. Metastatic tumors.
2. Periosteal fibrosarcoma (fibrosarcoma).
3. Osteogenic tumors.
   - A. Benign.
     - a. Exostosis.
     - b. Osteoma.
     - c. Chondroma (myxoma).
     - d. Fibroma.
   - B. Malignant—osteogenic sarcoma (to include spindle cell sarcoma, round cell sarcoma, osteosarcoma, chondrosarcoma, mixed cell sarcoma, angiosarcoma, perithelial sarcoma, bone aneurysm, etc.).
     - a. Anatomic types.
       - Medullary and subperiosteal.
       - Periosteal.
       - Sclerosing.
       - Telangiectatic.
     - b. Undifferentiated sarcoma.
4. Inflammatory conditions that may simulate bone tumors.
   - a. Myositis ossificans.
   - b. Osteoperiostitis.
     - Traumatic.
     - Syphilitic.
     - Infectious.
   - c. Osteitis fibrosa (including bone cyst).
5. Benign giant cell tumor.
6. Angioma.
   - Benign.
   - Malignant (angiosarcoma).
7. Ewing's tumor (endothelial myeloma).
8. Myeloma.

In general these tumors can be grouped into three classes—a grouping which is of value from the standpoint of treatment and of prognosis.

Those that are benign, and therefore curable, include exostoses, osteoma, chondroma of the phalanges, fibroma, bone cyst, and giant cell tumor.

The malignant tumors, the larger percentage of which are incurable, include osteogenic sarcoma, endothelial myeloma of Ewing, myeloma, and metastatic tumors.

The third group, which is on the border line, and which may possibly present a hopeful prognosis, includes central chondromas (except phalangeal) and atypical sarcoma.

SYMPTOMATOLOGY AND CLINICAL SIGNS

Certain symptoms and signs call attention to the possible presence of a bone tumor. These constitute presumptive evidence only and can be considered only in the light of all data.

Pain is usually the first symptom in malignant tumors of bone, and it may be noted some days or weeks before a swelling is observed, depending somewhat upon the location of the tumor. The pain is at first intermittent in character, varying in intensity and worse at night. Furthermore, it is not influenced by position or mobility, a factor which distinguishes it from the pain of tuberculosis. *Unexplained persistent pain in the region of bone or joint structure with or without history of trauma should call for repeated x-rays* at intervals of two to four weeks *until definite diagnosis has been established.* The committee deplores the frequent diagnosis of rheumatism without x-ray examination in persistent pain.

Pain may also be the first symptom of border-line or benign tumors; but it is likely to be a less severe pain and of more gradual onset.

*Age of Onset.**—Although primary malignant bone tumors on the whole have a predilection for youth, the age of onset is of little diagnostic significance in differentiating benign from malignant tumors.

Antecedent Trauma.—History of antecedent trauma may be obtained, but a history of injury before the discovery of a bone tumor is by no means to be taken as evidence that the tumor was in fact caused by the injury.

Pathologic Fracture.—Pathologic fracture as the initial symptom (the first indication of trouble) commonly occurs in the bone cyst (osteitis fibrosa), may occur in giant cell tumor or chondroma. Pathologic fracture may occur in the course of malignant bone tumor, but seldom if ever presents as the initial symptom (except occasionally in metastatic lesions).

*Location.**—Even though bone tumors may occur in any bone, they have sites of predilection in certain long bones; and, except in Ewing's sarcoma, for the ends of them. Joints, as a rule, are rarely invaded until late.

*The Cancer Commission was brought into being by the House of Delegates of the California Medical Association to aid in the furtherance of all efforts to combat cancer. The roster of officers and the central office of the Commission to which communications may be sent is printed in this issue of CALIFORNIA AND WESTERN MEDICINE (see front cover directory). This column is conducted by the Secretaries of the Commission.

* For age of onset and for tables of favorite sites of the various bone tumors, see Charles F. Geschickter and Murray M. Copeland, "Tumors of Bone," *American Journal of Cancer,* 654 Madison Avenue, New York.

Duration of Symptoms.—In a very general way the duration of symptoms may be helpful in differential diagnosis. Tumors with a history of less than a year are likely to be malignant; tumors with a history of over a year are likely to be benign. Where a lesion has been present for a period longer than a year and it assumes renewed growth, malignant change must be suspected. This applies especially to osteochondroma or central chondroma in a long bone.

Systemic Reaction.—Fever and leukocytosis may occur in the more rapidly growing tumors. Increased local heat may be detected in many cases. Until metastases have occurred, the general well-being of a patient is good.

DIAGNOSIS

A thorough history should be taken and a complete physical examination made in all cases of possible bone tumor. These should include search for a primary focus elsewhere to rule out the possibility of the bone condition's being metastatic. The history should also bring out the previous removal of any tumors of any location. An exact diagnosis of these previous tumors should be made by study of the original microscopical sections.

Blood counts should be made, remembering that leukocytosis may be increased in a tumor as well as in osteomyelitis.

Bence-Jones protein in the urine suggests multiple myeloma, but may occur in metastatic carcinoma. Its absence does not rule out either.

A Wassermann test should be done in all cases. A positive Wassermann test, however, does not prove that a tumor is due to syphilis; nor does a negative test with certainty rule out syphilis. In some instances an antiluetic therapeutic test, including potassium iodid, *of not more than three weeks*, is worth while, response being rapid in syphilitic lesions.

X-ray studies should be made from various angles and with varying degrees of penetration. These should include the unaffected as well as the affected side, especially in those cases where the bone changes in the affected area are not marked. On the suspicion of malignancy, x-ray of the chest should be made; and where multiple lesions are suspected, as in Ewing's sarcoma, metastatic carcinoma and multiple myeloma, plates of the skull, spine and pelvis should be included.

THE VALUE OF ROENTGEN-RAY DIAGNOSIS

The committee feels that x-ray is the most important single factor in the diagnosis of bone tumors; but, while most benign and metastatic bone lesions can be diagnosed by x-ray, it should not be used to the exclusion of other diagnostic methods. Only the best x-ray studies that can be made are worthy of consideration, and even with such studies and with full clinical data, uncertainty of diagnosis, especially in early malignant conditions, will often arise.

A detailed discussion of the typical x-ray appearances and their variations in the case of each type of bone tumor would be impossible in this brief synopsis. The committee desires again to emphasize the difficulty of positive diagnosis and to urge that *consultation should be regarded as an essential step in diagnosis.*

TREATMENT

Osteochondromas (exostoses) require no treatment unless they interfere with function or are painful, in which case they should be excised. If not excised they should be closely watched because rarely they may undergo malignant change; and this is especially suggested when growth occurs after years of quiescence.

Chondromas.—Central chondroma in the phalanges (unless associated with myxoma) is curable by curettage. In the long bones and sternum, shoulder and pelvic girdles, chondromas are notorious for the variability of their behavior and for the lack of accurate correspondence between their histologic picture and their clinical course (see report of Pathology Committee). These should never be curetted. If surgically treated, resection or amputation should be done. It is suggested that rarely, however, should surgical treatment be necessary. X-ray therapy usually relieves the pain and stops the growth; and may be employed indefinitely. External chondromata of the long bones or the chest cage or pelvic and shoulder girdles call for an attempt at resection when interfering with important function. When recognized earlier, x-ray therapy should be given prolonged and thorough trial.

Bone Cyst (Osteitis Fibrosa).—Collapse of the cavity usually causes them to heal. Latent bone cysts require no treatment.

Giant Cell Tumor.—Giant cell tumor is ordinarily amenable to prolonged treatment (several months) by radiotherapy. These tumors do better under radiation therapy if not previously interfered with surgically; therefore biopsy before irradiation is discouraged—certainly, unless the x-ray interpretation is doubtful. It is recognized that these tumors can be cured by surgical curettage and cauterization, but frequently the integrity of the bone or neighboring joint is menaced by the thorough cauterization which must be done to prevent recurrence.

Malignant Tumors.—The only treatment at present offering hope for malignant osteogenic tumors is amputation above the tumor. Disarticulations, as at the hip joint, offer no advantage and are rarely justifiable, if a sufficiently wide margin of normal tissue *and bone* can be obtained without disarticulation. The margin must be ample because of the frequent medullary extensions of osteogenic sarcoma. Resection with safe margin of normal tissue may occasionally be possible; but amputation with an artificial limb ordinarily offers better function than that obtained after resection and bone transplant. The disease rarely, if ever, recurs at the site of amputation when this is done with a sufficient margin. The cause of failure to cure is metastasis, which is existent but unknown at the time of operation. Pulmonary metastasis takes place so early from malignant osteogenic tumors that the percentage of cured cases is very small. It should be emphasized that amputation should never be done except on very positive diagnosis, including competent microscopical examination of biopsy specimen.

Amputation should not be mentioned in the patient's hearing until all consultants are prepared to insist that no treatment except amputation is satisfactory, at which time it should be easier to secure the patient's consent.

Tumors which because of their position are inoperable require thorough and intensive high voltage x-ray treatment.

A short course of intensive preoperative x-ray is of value, especially in the endothelial myeloma (Ewing's sarcoma), since this tumor is sensitive to radiation. Shrinkage of the tumor is characteristic of it following even one or two treatments by x-ray. Its position in the shaft of long bones lessens the number of cases which can be amputated above the tumor. In those cases in which amputation is possible, it should be performed following x-ray therapy.

Radiation alone should be used in all cases which have chest or other metastases; and amputation is not justifiable except for severe pain or a foul fungating tumor.

With regard to radiation therapy, while definite plans recommended for bone tumors are available, it is felt that their inclusion here is unnecessary since such treatment should be carried out only by those well versed in its usage. Details of treatment can be obtained by writing to the Cancer Commission.

PROCEDURE TO BE FOLLOWED IN A DOUBTFUL CASE

If after initial x-ray a positive diagnosis cannot be made, the following procedure should be employed:

1. Start x-ray therapy at once. The recommendation for x-ray therapy is based upon the fact that it cannot make the tumor worse, that the response to x-ray may verify the diagnosis, and that radiation may, and probably does, arrest the growth and spread of malignant tumors, so that the short period of delay does not decrease the patient's chances of a cure.

2. Secure all x-ray films which can contribute to the diagnosis; and complete the clinical work-up. The tumor should be observed by x-ray examination with reference to the effect of the radiation therapy.

3. Have consultation, sending all films and history to a consulting physician or clinic, if the patient himself cannot be transported with them.

4. If malignant bone tumor in an early stage is suggested after these steps have been carried out, perform biopsy, as suggested below.

BIOPSY

Biopsy is positively contraindicated as a primary diagnostic procedure and should be done only after other diagnostic resources have been employed. Biopsy is not needed to complete diagnosis of many bone tumors, and may increase metastases of a malignant tumor or seriously interfere with success of roentgen therapy in certain benign tumors. Biopsy should be done to confirm the diagnosis of malignancy before resorting to amputation.

Preparation should be made for immediate tissue diagnosis and therapeutic procedures (amputation or other) if diagnosis can be positively made from frozen section. If the frozen section diagnosis is not positive, it is recommended that further microscopic study be carried out before amputation, continuing radiation therapy in the meantime.

COLEY'S TOXINS

Occasional reports of cured cases with metastases are made, and a large proportion (approximately 50 per cent) of cured cases in the Bone Sarcoma Registry which have had this treatment suggests that it may be of value. Doctor Coley, himself, uses it prophylactically in all cases of bone tumor following amputation.

Doctor Ewing reports as follows: "We see very few good results from the use of Coley's toxins, but we do see some. The toxins seem to increase the effect of radiation in certain highly malignant tumors. The good effects are rather apparent in a few cases of very cellular malignant tumors, which are also vascular. In these cases the result is uncertain. Yet, I would recommend the use of Coley's toxins in very cellular malignant tumors, especially when general metastases are present."

OSTEITIS FIBROSA AND PAGET'S DISEASE

Osteitis fibrosa and Paget's disease are not neoplasms themselves, but they are included in this discussion because at times they must be distinguished from bone tumors.

Osteitis fibrosa cystica may involve one or more bones progressively, while Paget's disease involves, notably, pelvis, tibia, and skull. Paget's disease, especially, should be observed closely for the possible development of bone sarcoma.

SUMMARY

1. Persistent localized pain in bone or joint demands x-ray study for possible bone tumor, repeated until diagnosis has been established or pain has subsided.

2. The danger of mistaking benign lesions of bone for sarcoma may be greater than the chance of curing sarcoma by amputation; therefore amputation should not be done until all diagnostic resources have been *exhausted, including ample consultation.*

3. Radiation therapy should be given while diagnosis is being completed.

4. Biopsy should be the last resort in differential diagnosis and should be done with preparation for immediate therapy if diagnosis can be completed by frozen section.

Respectfully submitted,

C. M. A. CANCER COMMISSION
COMMITTEE ON BONE TUMORS.

Edwin I. Bartlett, Chairman	Arthur L. Fisher
Sylvan L. Haas, Secretary	Thomas R. Haig
LeRoy C. Abbott	M. C. Harding
Harold D. Barnard	Harold H. Hitchcock
Harold Brunn	Hugh Jones
N. Austin Cary	Otto H. Pflueger
C. L. Connor	H. E. Ruggles
	William H. Sargent
	John C. Wilson

Biological Studies.—It has been a matter of common knowledge for years that cancerous tumors sometimes disappear after the patient has been attacked by another disease. This has been observed in the case both of erysipelas and of African relapsing fever. Work has now been undertaken to investigate the matter further by means of a series of experiments in which fowls were inoculated with the tumor cells of actively growing Rous sarcoma and then with spirocheta anserina. It was found that, while most of the fowls died, the tumor disappeared in those which recovered. These experiments have been repeated upon mice (also with sarcoma). In most of the mice who survived an attack of relapsing fever produced by inoculating spirocheta anserina, the tumor reabsorbed and disappeared.—Ninth Annual Report, British Empire Cancer Campaign, 1932.

Late Radium Reaction.—That a reaction characterized by inflammation, increased vascularity and sometimes ulceration or abscess usually follows treatment by radium, is, of course, well known. But this occurs as a rule within from two to four weeks. Instances in which reaction occurs at long periods after treatment are rare; nevertheless, in a series of 620 cases of cancer of the cervix which received treatment by radium there were forty-eight cases of late radium reaction. In most of these patients symptoms of reaction began to show themselves from six to twelve months after treatment. Fourteen months was the longest period observed. Statistics seem to show that cases of late reaction are becoming less frequent; this is due, doubtless, to the use of better methods, including increased filtration. The cause of late reaction is believed to be damage inflicted at the time of treatment upon the finer arterioles in the tissues; the reaction, on this showing, is not a direct effect of the radium on the tissues themselves.—Ninth Annual Report, British Empire Cancer Campaign, 1932.

Pernicious Anemia Following Gastrectomy.—There are now appearing in the literature only too frequent examples of pernicious anemia following gastrectomy. Attention has been drawn to this situation by our better understanding of the etiology of pernicious anemia as a disease in some way dependent upon a hormone present in the mucous membrane of the stomach and the substance of the liver.

The surgeon who resects the stomach for carcinoma should be interested, for he should expect the development of pernicious anemia when all or a large portion of the stomach is removed.

A total of eleven definite cases and five probable cases of pernicious anemia following gastrectomy have so far been reported. In the cases of pernicious anemia following gastrectomy noted above, the average interval between the operation and the development of the anemia was six and one-tenth years, the shortest one and a half years and the longest fourteen years. It is apparent that the great majority of gastrectomized patients do not live long enough to develop pernicious anemia. As time goes on, and earlier diagnosis and improvements in operative technic enable more patients to survive gastrectomy for a significant length of time, pernicious anemia will probably be encountered more frequently.

Partial resection of the stomach may also be a sufficient cause for pernicious anemia. Five of the cases of pernicious anemia described above followed partial gastrectomy. It is not apparent from the descriptions of these cases just which portions of the stomach were resected. The present knowledge of the factor in the stomach controlling blood formation has not localized this function to any particular portion of the stomach.

It is, therefore, impossible to predict how much, and what part of the stomach may be resected without engendering pernicious anemia. The surgeon doing partial gastric resections should keep in mind the possibility of the development of pernicious anemia.—Abstract, *American Journal of Cancer,* Vol. 16, 1932, pp. 427-431.

STATE MEDICAL ASSOCIATIONS

This department contains official notices, reports of county society proceedings and other information having to do with the state associations and their component county societies. The copy for the department is edited by the state association secretaries, to whom communications for this department should be sent. Rosters of state association officers and committees and of component county societies and affiliated organizations, are printed in the directories noted under Miscellany, on the front cover index.

CALIFORNIA MEDICAL ASSOCIATION

GEORGE G. REINLE ..... President
CLARENCE G. TOLAND ..... President-Elect
EMMA W. POPE ..... Secretary-Treasurer

COUNCIL MINUTES

Minutes of the Two Hundred and Thirteenth Meeting of the Council of the California Medical Association

The following minutes were approved by the Council at its two hundred and fifteenth meeting, held at Hotel Del Monte, Del Monte, on April 24, 1933.

Held in the offices of the California Medical Association, Room 2004, 450 Sutter Street, San Francisco, Saturday, March 4, 1933, at 9:30 a. m.

Present.—Doctors Joseph M. King, president; George G. Reinle, president-elect; Edward M. Pallette, Speaker; and Councilors W. W. Roblee, H. J. Ullmann, F. R. DeLappe, A. L. Phillips, K. L. Schaupp, H. S. Rogers, G. G. Hunter, H. E. Zaiser, W. H. Kiger, M. R. Gibbons, J. B. Harris; T. Henshaw Kelly; and George H. Kress, editor; Emma W. Pope, secretary; W. M. Dickie, director of the Department of Public Relations; Charles A. Dukes, chairman of Committee on Public Relations, and Hartley F. Peart, general counsel. Doctor Yoell was present at 3 p. m. to speak on Senate Bill 953.

Absent.—Doctors O. D. Hamlin, chairman of the Council, and Councilors William Duffield and Robert A. Peers.

1. **Call to Order.**—The meeting was called to order by the vice-chairman, T. Henshaw Kelly.

2. **Senate Bill 953.**—Doctor Kelly stated that a number of changes had been made in Senate Bill 953, sponsored by Doctor Yoell, and that Dr. Rodney Yoell was anxious to again appear before the Council on behalf of the bill, and also wished to secure the approval of the Council on his request that Mr. Peart review the bill and inform the proponents of the points wherein it did not meet with the viewpoints of the Council.

Action by the Council.—On motion of Hunter, seconded by Ullmann and unanimously carried, the following resolution was adopted:

Resolved, That Dr. Rodney Yoell be invited to address the Council at 3 p. m. and that his time be limited to fifteen minutes.

3.* (See footnote.)

4.* (See footnote.)

5. **Committee on Public Policy and Legislation.**—The secretary stated that Doctor Catton had submitted his resignation as a member of the Committee on Public Policy and Legislation and the Executive Committee at its meeting on February 4 had appointed Dr. T. Henshaw Kelly, acting member of the committee.

The secretary then read a letter from Doctor Kelly asking that his name be not considered for the permanent appointment.

Action by the Council.—On motion of Gibbons, seconded by Reinle and unanimously carried, the following resolution was adopted:

Resolved, That the resignation of Doctor Catton as a member of the Committee on Public Policy and Legislation be accepted and that he be thanked for his services.

The Council felt that Doctor Harris should nominate a successor to fill the vacancy. Doctor Harris suggested that Doctor DeLappe be elected.

On nomination of Pallette, seconded by Ullmann, Fred R. DeLappe was unanimously elected a member of the Committee on Public Policy and Legislation to fill the unexpired term of Doctor Catton; term expiring April, 1933.

It was the sense of the Council that Doctor Kelly be thanked for the work performed on behalf of the Legislative Committee.

6. **Noon Adjournment.**—At this point, adjournment was taken for luncheon.

7. **Call to Order.**—The meeting was called to order by the vice-chairman, T. Henshaw Kelly. With the unanimous consent of the Council, the chairman then called for consideration of miscellaneous matters on the docket.

8. **Minutes of the One Hundred and Thirty-fifth and One Hundred and Thirty-sixth Meetings of the Executive Committee.**—The minutes of the one hundred and thirty-fifth and one hundred and thirty-sixth meetings of the Executive Committee, as mailed to all councilors, were presented for approval.

Action by the Council.—On motion of Ullmann, seconded by Schaupp and unanimously carried, the following resolution was adopted:

Resolved, That the minutes of the one hundred and thirty-fifth and one hundred and thirty-sixth meetings of the Executive Committee be approved.

9. **Minutes of the Two Hundred and Twelfth Meeting of the Council.**—Minutes of the two hundred and twelfth meeting of the Council, as mailed to all members, were presented.

Action by the Council.—On motion of Schaupp, seconded by Ullmann and unanimously carried, the following resolution was adopted:

Resolved, That the minutes of the two hundred and twelfth meeting of the Council be approved.

10. **Retired Memberships.**—(*a*) Request from the San Francisco County Medical Society for the granting of retired membership to Helen J. Waterman was presented.

Action by the Council.—On motion of Ullmann, seconded by DeLappe and unanimously carried, the following resolution was adopted:

Resolved, That Helen J. Waterman, Berkeley, member of San Francisco County Medical Society be granted retired membership in the California Medical Association.

(*b*) Request from the Stanislaus County Medical Society for the granting of retired membership to J. L. Hennemuth, Modesto, was presented.

Action by the Council.—On motion of Ullmann, seconded by DeLappe and unanimously carried, the following resolution was adopted:

Resolved, That J. L. Hennemuth, Modesto, member of the Stanislaus County Medical Society, be granted retired membership in the California Medical Association.

(*c*) Request from the Yolo-Colusa-Glenn County Society for the granting of retired membership to H. D. Lawhead, Woodland, was presented.

* Note.—Minutes 3 and 4 refer to matters still under consideration by the Council. Publication will be made in due time by Council secretary.

Action by the Council.—On motion of Ullmann, seconded by DeLappe and unanimously carried, the following resolution was adopted:

Resolved, That H. D. Lawhead, Woodland, member of the Yolo-Colusa-Glenn County Medical Society, be granted retired membership in the California Medical Association.

(*d*) Request from the Los Angeles County Medical Association for retired membership of seven members was presented.

Action by the Council.—On motion of Schaupp, seconded by Phillips and unanimously carried, the following resolution was adopted:

Resolved, That Charles C. Browning, Nannie C. Dunsmoor, George Jennings, William E. McLaughlin, A. S. Wall, and W. L. Yager be granted retired membership in the California Medical Association.

In regard to one other member whose name was proposed, it was stated he was ineligible for retired membership since he had been a member of the California Medical Association for but three years and, according to the constitutional provision, no member is eligible for retired membership who has not been a member in good standing for ten years.

11. **Kern County Society.**—A resolution adopted by certain members of the Kern County Medical Society asking that the California Medical Association attempt to settle by arbitration the internal disputes of the society was read.

After discussion, on motion of Harris, duly seconded and unanimously carried, the following resolution was adopted:

Resolved, That the matter be left to Doctor Dickie, who shall submit a report to the president and that final authority be delegated to Doctor King with power to act.

12. **Annual Luncheon of Officers and Committeemen.**—The value of the annual luncheon of officers of the Association and county societies and committeemen was discussed.

It was the sense of the Council that the meeting be held at luncheon on Tuesday, April 25, at Del Monte.

13. **Council Meetings.**—It was the sense of the Council that the first meeting of the Council be held on Sunday, April 23, at Del Monte, and that the Monday and Thursday meetings be held in the morning, and the Tuesday and Wednesday meetings in the afternoons at 2:30.

14. **Senate Bill 953.**—Dr. Rodney Yoell presented various literature and newspaper clippings demonstrating his contention that a bill regulating hospital associations as contemplated by Senate Bill 953 was timely. Doctor Yoell stated that the Association's main objection to the bill, as he understood it, was that the bill would legalize the practice of medicine by corporations. Doctor Yoell stated that the proponents of the bill were perfectly willing and requested the Council to authorize Mr. Peart to rewrite the first two or three paragraphs of the bill so that it would meet with the viewpoints of the Association. The danger of attempting to amend a bill sponsored by laymen and over which the Association had no control and the possibility of later amendments being added to the bill which would be detrimental to the medical profession were discussed.

Doctor Yoell stated that the bill as proposed by him defined medical practice and gave the medical profession a legal status in law.

The Council then discussed the bill.

It was the sense of the Council that the Association should oppose all bills which deal with, authorize or provide for the legalizing of the practice of medicine by corporations.

Mr. Peart then read a memorandum prepared by him for the regulation of hospital service corporations or associations furnishing hospital service only, stating that it might be desirable to include these regulations in a bill. Mr. Peart then read a set of principles covering hospital associations.

Action by the Council.—On motion of Pallette, seconded by Ullmann and unanimously carried, the following resolution was adopted:

Resolved, That the Council is opposed to Senate Bill 953 or any bill that includes medical service with hospital service and that the General Counsel write Doctor Yoell to that effect.

15.* (See footnote.)

16. **Woman's Auxiliary.**—A letter was presented from the Woman's Auxiliary asking that the Association donate $150 for the entertainment of guests at the annual session at Del Monte.

Action by the Council.—On motion of Pallette, seconded by Gibbons and unanimously carried, the following resolution was adopted.

Resolved, That the request of the Woman's Auxiliary be granted and $150 be donated for the entertainment of guests at the annual session at Del Monte.

17. **Advertising Rates.**—A letter was presented regarding the reduction of advertising rates in CALIFORNIA AND WESTERN MEDICINE. The secretary was instructed to reply to the letter.

18. **Complimentary Copies of Journal.**—A letter requesting comlimentary copies of the JOURNAL for certain libraries in Texas was read.

Action by the Council.—On motion of Gibbons, seconded by Pallette and unanimously carried, the following resolution was adopted:

Resolved, That the secretary reply to the letter, stating that we are unable to comply with the request at the present time.

19. **Interpretation of X-Rays.**—The General Counsel stated that the Executive Committee had authorized him to prepare and file an *amicus curiæ* brief in the case of Reynolds vs. Doctor Struble.

Action by the Council.—On motion of Ullmann, seconded by King and unanimously carried, the following resolution was adopted:

Resolved, That the Council approve the action of the Executive Committee.

20. **Expenditures of Association.** — Doctor Roblee suggested that a survey of the financial affairs of the Association be made and that a report be submitted to the Council.

Action by the Council.—On motion of Hunter, seconded by Reinle and unanimously carried, the following resolution was adopted:

Resolved, That a committee consisting of five members of the Association be appointed by the president to survey the financial affairs of the Association, three to be members of the Council, and two to be chosen from the society at large, neither of whom shall be members of the Cancer Commission nor the Department of Public Relations.

21. **Legislative Assistant.**

Action by the Council.—On motion of Pallette, seconded by DeLappe and unanimously carried, the following resolution was adopted:

Resolved, That the chairman of the Legislative Committee be allowed $200 per month for the employment of a clerical assistant.

22. **Illness of Doctor Hamlin.**—It was the sense of the Council that Doctor Kelly be authorized to send a telegram to Doctor Hamlin expressing the sympathy of the Council in his illness and the hope for his speedy recovery.

23. **Legislation.**—A list of the bills of interest to the medical profession was submitted. Doctor Harris stated that the bills had been gone over by the legislative committees in the North and in the South, and asked if the Council desired to review all bills again or would it accept the recommendation of the two committees and consider only those bills of special interest and those bills which had been referred to the Council.

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* Note.—Minutes 15 refer to matters still under consideration by the Council. Publication will be made in due time by Council secretary.

It was the sense of the Council that the recommendations of the northern and southern committees be accepted and the Council proceed to make recommendations on the special list.

SENATE BILLS

Senate Bill 160 (Seawell). Unlawful for hospital associations to operate without license from insurance commissioner (companion, Assembly Bill 695).

Senate Bill 547 (Allen et al.). Repeals Narcotic Rehabilitation Act and abolishes Spadra. Oppose.

Senate Bill 552 (Fellom). Adds section to Political Code relating to state psychiatrists; establishes division of psychiatry in Department of Institutions. Oppose.

Senate Bill 610 (Bush et al.). Amends Section 5, Medical Practice Act. Abolishes per diem of Board of Medical Examiners. Oppose.

On motion of Kress, seconded by Pallette and unanimously carried, the following resolution was adopted:

Whereas, The state examining boards which are under the Department of Professional and Vocational Standards are self-supporting boards maintained through license fees received from citizens who also pay all usual real and personal taxes; and

Whereas, The object of such licensing boards is the protection of the people from improperly qualified persons who would otherwise attempt to practice such professions or vocations; and

Whereas, The members of such licensing boards although receiving no salaries, are called upon to give much time and service to the state, to the detriment of their individual personal interests; and

Whereas, It has been proposed to cut off the nominal per diem fee for days when in actual attendance at board meetings, their per diems being paid, not from general tax funds of the state, but from the special license fee funds of each board; now therefore be it

Resolved, That the California Medical Association through its Council believes such action would be detrimental to the best interests of the people of the state and to the professional and vocational interests involved; be it further

Resolved, That we instruct our representatives to communicate this viewpoint to the legislative and administrative authorities of California.

Senate Bill 674 (Fellom). Antivivisection Bill. Oppose.

Senate Bill 724 (Inman). Care of indigent, incompetent, and incapacitated. No action.

Senate Bill 782 (Mixter). Duties of Boards of Supervisors. Oppose vigorously.

Senate Bill 849 (Jones). Reduces tuberculosis allotment from $3 to $2 per week. No action.

Senate Bill 1010 (Allen et al.). Repeals Narcotic Enforcement Act. Transfers to Pharmacy Board. Bill O. K. No action required.

ASSEMBLY BILLS

Assembly Bill 166 (Cronin). Amends Political Code re release of defendant committed to institutions for insane. Approve.

Assembly Bill 167 (Cronin). Amends Political Code re release of persons committed and insane and incompetent. Approve.

Assembly Bill 172 (Woolwine). Adds new section to Cosmetology Act. Oppose.

Assembly Bill 211 (Lyon). New Act to provide for sterilization selected inmates of state institutions. Oppose.

Assembly Bill 245 (Crowley). Amends Narcotic Rehabilitation Act re addicts. Approve.

Assembly Bill 273 (Mayo). Amends tuberculosis laws. Requires practicing physician supervision in tuberculosis hospitals. Oppose.

Assembly Bill 288 (Grubbs). Amends Workmen's Compensation Act classifying registered nurses as employees of hospitals. No action.

Assembly Bill 313 (Hornblower). Amends Medical Practice Act re license to practice chiropody. Oppose.

Assembly Bill 317 (Cronin). Amends Narcotic Law. Oppose.

Assembly Bill 318 (Cronin). Amends Narcotic Act. Permits nurses to obtain and osteopaths to prescribe narcotics, etc. Vigorously oppose.

Assembly Bill 349 (Boyle). Repeals Narcotic Enforcement. Transfers function to Board of Pharmacy. No action.

Assembly Bill 539 (Lyon). Amends Political Code relating to persons mentally disordered. Approve.

Assembly Bills 557, 558, 559 (Cronin et al.). Amends Civil Code relating to injunction for unlawful practice. Vigorously support.

Assembly Bill 565 (Fisher). Provides voluntary sterilization of persons not in state institutions. Approve.

Assembly Bill 647 (Mayo). Amends Workmen's Compensation Act. Limits amount of compensation to be paid. Oppose.

Assembly Bills 648, 649, 650, 651 (Mayo). Amends Workmen's Compensation Act. Bill O. K., but no action by the California Medical Association.

Assembly Bill 695 (Robinson). Companion bill, Senate Bill 160. Unlawful to engage in medical service without license from Insurance Commission. Oppose.

Assembly Bill 784 (Rose). Amends Itinerant Drug Venders' Act. Reduces fees. Oppose.

Assembly Bill 795 (Craig). X-Ray Technicians' Bill. Oppose vigorously.

Assembly Bill 827 (McBride). Amends Political Code relating to state institutions for mentally defective. Oppose vigorously.

Assembly Bill 900 (Rawls). Amends Workmen's Compensation Act. Permits chiropractors to care for injured. Oppose vigorously.

Assembly Bill 904 (Mayo). Amends Political Code relating to Industrial Accident Commission. Members to serve at pleasure of Governor. Oppose.

Assembly Bill 982 (Roberts). Amends dental laws. Oppose.

Assembly Bill 983 (Roberts). Amends dental laws. Oppose.

Assembly Bill 984 (Roberts). Amends Dental Laws. Approved. To help dentists.

Assembly Bill 985 (Roberts). Amends dental law. Approved. To help dentists.

Assembly Bill 986 (Crist). Provides impartial witnesses from Civil Service panel. Approve.

Assembly Bill 987 (Crist). New law relating to medical examinations and expert testimony. Approve.

Assembly Bill 1027 (Mayo). Amends Workmen's Compensation Act relating to findings and awards. Vigorously oppose.

Assembly Bill 1029 (Mayo). Workmen's Compensation Act. Relating to medical examinations of employees. No action.

Assembly Bill 1034 (Boyle). Care of indigent tuberculous persons. Oppose vigorously.

Assembly Bill 1074 (Hornblower). Health insurance on assessment plan. No action.

Assembly Bill 1149 (Williamson). New Bird Inspection Law. No action.

Assembly Bill 1159 (Gilmore). Creates Naturopathic Association of California. Oppose vigorously.

Assembly Bill 1168 (Morgan). Amends Workmen's Compensation Act relating to aggravation of disease prior to injury. No action.

Assembly Bill 1277 (Nielsen). Clinic Bill. Support.

Assembly Bill 1306 (Dempster). Establishes state board of naturopathic examiners. Oppose.

Assembly Bill 1322 (Boyle). Amends Indigent Act relating to old age relief. No action.

Assembly Bills 1340, 1341, 1342 (Williamson). Food laws. Board of Health amending to be acceptable. No action.

Assembly Bill 1461 (O'Connor). New law regarding ingredients of cosmetics. No action.

Assembly Bill 1487 (Cronin). Establishes California Psychiatric Institute. No action.

Assembly Bill 1727 (Jones). New section to Indigency Act. Mr. Peart to examine. Definition of indigency. Confer with committee and work on bill.

Assembly Bill No. 1740 (Maloney). Places chiropractors in all state institutions and prisons. Oppose.

Assembly Bill 1743 (Dempster). Amends Political Code re indigents. Oppose.

Assembly Bill 1777 (Fisher). Amends Political Code re county hospitals. Skeleton.

Assembly Bill 1778 (Fisher). Provides aid for indigents. Skeleton.

Assembly Bill 1779 (Fisher). Authorizes administration of relief to county welfare agencies. Skeleton.

Assembly Bill 1780 (Fisher). Amends Indigency Act. Skeleton.

Assembly Bill 1813 (O'Connor). Abolishes Department of Professional and Vocational Standards. Places medical examiners and others under Department of Health. Oppose.

Assembly Bill 1830 (Field). Amends Rabies Act relating to diseased birds and animals. Oppose. Bad bill.

Assembly Bill 1849 (Frazier). Repeals law supporting children in preventoria. Oppose.

Assembly Bill 1924 (Gilmore). New section to Medical Practice Act. Only physicians may retail physical deformity correction appliances. Violently oppose.

Assembly Bill 2157 (Dempster). Permits owners of small shops to maintain families on premises. Support.

Assembly Bill 2190 (Bliss). Admits pay patients to county hospitals. Oppose vigorously.

Assembly Bill 2246 (Robinson and Ray). Makes available buildings at Spadra for feeble-minded children. In case Spadra is closed for narcotics, support.

Assembly Bill 2250 (Cobb). Repeals United States Pharmacy appropriation made at last legislature. Oppose.

On motion of Kress, duly seconded and unanimously carried, the following resolution was adopted:

Whereas, The various professional and vocational examining boards receive their maintenance fees to carry on their work, not from the general tax funds of the state, but from special license and similar fees levied on the members of such professions and vocations, although such citizens also pay the regulation real and personal taxes of the state; and

Whereas, These fees so received very properly have been placed in special funds to the credit of the respective boards; and

Whereas, It is proposed to transfer balances in some of such special board funds to the general fund of the state; and

Whereas, Such action would be an expression of possible illegal special taxation, since it would subject certain citizens not only to real and personal taxation, but to special taxation; now therefore be it

Resolved, By the California Medical Association, through its Council, that, because of the above facts, this Association oppose on principle the transfer of balances in such special license and maintenance funds of such professional and vocational boards to the general funds of the state; and be it further

Resolved, That this action be respectfully called to the proper legislative and administrative authorities of the state.

CONSTITUTIONAL AMENDMENTS

No. 4 (Maloney). Amends Article 4, adds new section relating to practice of chiropractic. See Assembly Bill 18, page 3.

No. 39 (Latham). Exemption of nurses from taxation. No action.

24. **Adjournment.**—There being no further business the meeting adjourned.

T. HENSHAW KELLY, *Acting Chairman.*
EMMA W. POPE, *Secretary.*

Minutes of the Two Hundred and Fourteenth Meeting of the Council of the California Medical Association

The following minutes were approved by the Council at its two hundred and fifteenth meeting, held at Hotel Del Monte, Del Monte, on April 24, 1933.

Held in Room 723, Hotel Del Monte, Del Monte, California, Sunday, April 23, 1933, at 8 p. m.

Present.— Doctors Joseph M. King, president; George G. Reinle, president-elect; Edward M. Pallette, Speaker; T. Henshaw Kelly, chairman Executive Committee; and Councilors W. W. Roblee, William Duffield, H. J. Ullmann, A. L. Phillips; R. A. Peers, H. A. Rogers, G. G. Hunter, H. E. Zaiser, W. H. Kiger, M. R. Gibbons, T. H. Kelly, J. B. Harris; and Emma W. Pope, secretary, George H. Kress, editor; W. M. Dickie, director of Public Relations; and Mr. Hartley F. Peart, general counsel.

Absent.—Doctors O. D. Hamlin, chairman of Council, on account of illness, and Councilors Karl L. Schaupp and F. R. DeLappe.

1. **Call to Order.**—The meeting was called to order by the vice-chairman, T. Henshaw Kelly.

Action by the Council.—On motion of Phillips, seconded by Reinle and unanimously carried, the following resolution was adopted:

Resolved, That a telegram be sent O. D. Hamlin expressing the sympathy of the Council on his illness and its regret of his absence from the sixty-second annual session, the first session from which he has been absent in many years.

2. **Report of the Council.**—T. Henshaw Kelly presented the report of the Council, which was read and acted on section by section.

The report of the Committee on Clinical and Research Prizes was presented and the recommendations contained therein were approved for inclusion in the report of the Council for submission to the House of Delegates. It was felt that a statement on the excellence of the papers should be included.

Doctor Kelly stated that any necessary additions would be made to the paragraph on the Committee on Physical Therapy after the submission of the committee's report tomorrow.

Discussion was had of the inclusion of a section on medical service plans.

Action by the Council.—On motion of Ullmann, seconded by Pallette and unanimously carried, the following resolution was adopted:

Resolved, That a committee of three be appointed to report at the Monday meeting of the Council on a paragraph for inclusion in the report of the Council on medical service plans.

The questions of modification of the ruling on medical service plans, necessitating approval by two-thirds of all county society members and the allocation of the expense of formulation of plans, were discussed.

The chairman appointed as members of the committee, Doctors Reinle, Gibbons, Dukes, and Mr. Peart.

3. **Report of the Secretary.**—The report of the secretary, as published in the *Pre-Convention Bulletin,* was presented, and on motion of Ullmann, seconded by Pallette, the report was approved.

4. **Report of the Editor.**—The editor stated that in addition to the report of the editor published in the *Pre-Convention Bulletin,* which was a report on statistical information on the JOURNAL, he wished to submit a short general report.

Doctor Kress then read the report on additional information.

Action by the Council.—On motion of Hunter, seconded by Gibbons and unanimously carried, the report of the editor was approved and it was agreed that the supplemental report on general information should be read to the members of the House of Delegates.

5. **Report of the Auditing Committee.**—The report of the Auditing Committee, as published in the JOURNAL, was presented.

Action by the Council.—On motion of Ullmann, seconded by Pallette, the report of the Auditing Committee was approved.

6. **Report of the Committee on Public Relations.**—Dr. C. A. Dukes, chairman of the Committee on Public Relations, presented the report of the Committee on Public Relations.

Action by the Council.—On motion of Gibbons, seconded by Reinle and unanimously carried, the report of the Committee on Public Relations was accepted.

It was the sense of the Council that Doctor Dukes present a short report to the House of Delegates.

7. **Report of the Legal Department.**—The general counsel presented the report of the legal department. Mr. Peart then read a detailed report on the matter of the corporate practice of medicine.

It was the sense of the Council that this report be briefly summarized for presentation to the House of Delegates.

Full discussion was then had of the proposed bill governing county hospitals, Senate Bill No. 2190. It was agreed that the general counsel should present a brief explanation of the bill to the House of Delegates. Mr. Peart stated that he would also report briefly on the decision of the Supreme Court on the interpretation of x-rays and the legal aspect of medical and hospital service.

8. **Report of the Trustees Of The California Medical Association.**—The report of the Trustees Of The California Medical Association was presented by the acting chairman, and was approved as presented.

9. **Cancer Commission.**—The report of the Cancer Commission, as published in the *Pre-Convention Bulletin,* was approved.

10. **Committee on Public Policy and Legislation.**—The report of the Committee on Public Policy and Legislation, as published in the *Pre-Convention Bulletin,* was approved. It was the sense of the Council that a short report by the chairman of the committee should be included in the program of the first meeting of the House of Delegates.

11. **Miscellaneous Reports.**—It was the sense of the Council that the various miscellaneous reports not already acted upon be approved as published in the *Pre-Convention Bulletin.*

12. **Report of the Committee on Survey of Expenditures of the Association.**—Dr. William Roblee, chairman of the Committee on Survey of Expenditures, presented the report of his committee, which contemplated an annual saving of approximately $9,000, suggested to provide for the contemplated reduction of dues. It was agreed that the allocation to the JOURNAL should read $2 per member. Details of the report were explained by Doctor Roblee and discussed by the Council.

Action by the Council.—On motion of Hunter, seconded by Duffield and unanimously carried, the following resolution was adopted:

Resolved, That the report of the Committee on Survey of Expenditures of the Association be approved and that it be presented to the House of Delegates by Doctor Roblee.

13. **Health Officers.**—The secretary read a resolution adopted by the Council wherein it was suggested that the matter of activities of health officers be considered by the House of Delegates.

After discussion, on motion of Harris, seconded by Peers and unanimously carried, the following resolution was adopted:

Resolved, That the previous action of the Council recommending discussion by the House of Delegates be rescinded.

14. **Program of House of Delegates.**—The chairman read the program of the first two meetings of the House of Delegates.

It was the sense of the Council that the program of the first meeting be amended to include a report by the chairman of the Committee on Public Policy and Legislation.

Action by the Council.—On motion of Reinle, seconded by Rogers and unanimously carried, the following resolution was adopted:

Resolved, That the program for the first two meetings of the House of Delegates be approved as amended.

15. **Medical Problems Group.**—A letter was read from the Medical Problems Group, San Francisco, requesting that a fund be established to carry on a campaign to create sentiment favorable to the medical profession.

Action by the Council.—On motion of Ullmann, seconded by Rogers and unanimously carried, the following resolution was adopted:

Resolved, That the letter be referred to the Committee on Public Relations and that the Medical Problems Group be so notified, and their attention called to the report of the Committee on Survey of Expenditures.

16. **Annual Dues.**—Full discussion was had of the annual dues of the Association, and on motion of Peers, seconded by Ullmann and unanimously carried, the following resolution was adopted:

Resolved, That the Council present the matter of annual dues of the Association to the House of Delegates without recommendation.

17. **Adjournment.**—There being no further business the meeting adjourned.

T. HENSHAW KELLY, *Acting Chairman.*
EMMA W. POPE, *Secretary.*

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Minutes of the Two Hundred and Fifteenth Meeting of the Council of the California Medical Association

The following minutes were approved by the Council at its seventeenth meeting, held at Del Monte, California, April 26, 1933.

Held in Room 723, Hotel Del Monte, Del Monte, California, Monday, April 24, 1933, at 2:30 p. m.

Present.—Doctors Joseph M. King, president; George G. Reinle, president-elect; Edward M. Pallette, Speaker; T. Henshaw Kelly, chairman of Executive Committee; Councilors W. W. Roblee, William Duffield, H. J. Ullmann, F. R. DeLappe, A. L. Phillips, R. A. Peers, H. A. Rogers, G. G. Hunter, H. E. Zaiser, W. H. Kiger, M. R. Gibbons, J. B. Harris; Emma W. Pope, secretary-treasurer; George H. Kress, editor; and Hartley F. Peart.

Absent.—Doctors O. D. Hamlin, chairman of the Council, on account of illness, and Karl L. Schaupp.

1. **Call to Order.**—The meeting was called to order by the vice-chairman, T. Henshaw Kelly.

2. **Committee on Physical Therapy.**—John Severy Hibben, chairman of the Special Committee on Physical Therapy, presented the report of his committee. Doctor Hibben submitted data which had been collected through questionnaires sent to the teaching universities, county medical societies, and various hospitals in the state.

Action by the Council.—On motion of Gibbons, seconded by Reinle and unanimously carried, the following resolution was adopted:

Resolved, That the report of the committee be accepted and the committee continued.

The secretary presented a bill from Doctor Hibben for $77.92, covering clerical and stenographic work in compiling his report.

Action by the Council.—On motion of Peers, seconded by Phillips and unanimously carried, the following resolution was adopted:

Resolved, That the bill be paid.

3. **Minutes of the Council.**—The acting chairman stated that the minutes of the two hundred and thirteenth meeting of the Council had been mailed to all councilors and if there were no objections no further reading would be had. The minutes of the two hundred and fourteenth meeting of the Council were read by the secretary.

Action by the Council.—On motion of Reinle, seconded by Hunter, and unanimously carried, the following resolution was adopted:

Resolved, That the minutes of the two hundred and thirteenth and two hundred and fourteenth meetings of the Council be approved.

It was the sense of the Council that the minutes of the annual session be sent forward each day to the printer for publication in the May issue of the JOURNAL.

4. **Next Annual Session.**—Doctors Ferris and Van Zwalenburg of Riverside personally presented the invitation of the Riverside County Medical Association for the holding of the next annual session at Riverside.

It was the sense of the Council that the place of the next annual session be considered at the Wednesday meeting of the Council.

5. **Officers' Luncheon.** — The secretary announced the time and place of the officers' luncheon and the tentative program of the meeting.

6. **Standing Committees.** — Dr. William Duffield, member of the special committee on Nominees for Standing Committees, presented the recommendations of his committee.

Action by the Council.—On motion of King, seconded by Gibbons and unanimously carried, the following resolution was adopted:

Resolved, That the matter of nominees for standing committees be considered at the Wednesday meeting of the Council.

7. **Report on Advertising.**—The secretary presented a report on advertising in CALIFORNIA AND WESTERN MEDICINE, stating that the total income from advertising for 1932 was $25,792.74 as compared with $33,561.19, a difference of $7,768.45; that the December, 1932, JOURNAL carried forty-two pages of advertising as compared with fifty pages in 1931.

Discussion was then had of advertising in Southern California.

Action by the Council.—On motion of Duffield, seconded by Gibbons and unanimously carried, the following resolution was adopted:

Resolved, That that certain agreement dated May 31, 1933, made and entered into in duplicate between California Medical Association and A. A. Butterworth be and the same is hereby terminated in accordance with the provisions of paragraph 8 of said agreement, and that the secretary-treasurer be and is hereby authorized, empowered, and directed to serve notice in writing of such termination upon Mr. A. A. Butterworth forthwith.

8. **X-Ray Fee Schedule.**—Morton R. Gibbons, member of the Committee on Industrial Practice, presented a report on x-ray fee schedules for industrial accident work and insurance companies.

It was suggested that Doctor Gibbons discuss the schedule with representative members of the Section on Radiology.

Action by the Council.—On motion of Kress, seconded by Phillips and unanimously carried, the following resolution was adopted:

Resolved, That the report on fee schedules be accepted for presentation to the House of Delegates.

9. **County Hospitals.**—Mr. Peart reported on the county hospital situation.

Discussion was then had of the definition of indigency and pending legislation covering the admission of patients to county hospitals.

Action by the Council.—On motion of King, seconded by Reinle and unanimously carried, the following resolution was adopted:

Resolved, That the county hospital legislation be left to the discretion of the Committee on Public Policy and Legislation.

10. **Kern County**—Doctor King stated that in appointing an arbitrator for the Kern County situation, he had been designated by name instead of by office, and that upon termination of his office he wished to be excused from the duty. It was the sense of the Council that Doctor King's wishes be granted.

11. **Date of Delinquency.**—Letters were read from the Los Angeles County Society requesting that the California Medical Association and the American Medical Association grant an extension of one month's time in the period of delinquency.

It was the sense of the Council that since delinquency was fixed by constitutional provision, the matter was not within its jurisdiction.

12. **Membership.**—A request from the Yolo-Colusa-Glenn County Society for the granting of retired membership to Walter E. Bates was presented.

Action by the Council.—On motion duly made, seconded and carried, the following resolution was adopted:

Resolved, That Walter E. Bates, member of the Yolo-Colusa-Glenn County Medical Society be granted retired membership in the California Medical Association.

Requests from the San Francisco County Medical Society for the granting of retired membership to Julian Waller, San Francisco, and Frank P. Gray, San Francisco, were presented.

Action by the Council.—On motion of Phillips, seconded by DeLappe and unanimously carried, the following resolution was adopted:

Resolved, That Frank P. Gray, San Francisco, and Julian Waller, San Francisco, members of the San Francisco County Medical Association, be granted retired membership in the California Medical Association.

13. **Financial Statements.**—The secretary presented the financial statements for the months of February and March, 1933, which showed a cash balance of $54,267.30 and $61,988.90, respectively.

It was the sense of the Council that the statements be approved as presented.

14. **Lease for Association Office.**—A letter from the Four-Fifty Sutter Company was presented providing for a reduction of rent based on a five-year lease and a 20 per cent reduction for the first three years, 10 per cent for the fourth year, and 5 per cent for the fifth year of the present rental.

Action by the Council.—On motion of Pallette, seconded by Gibbons and unanimously carried, the following resolution was adopted:

Resolved, That no action be taken at this time.

15. **Subscriptions to the Journal.**—A letter from a member of the Association asking if a group of several doctors could pay a group subscription to CALIFORNIA AND WESTERN MEDICINE and receive a refund on Association dues was read.

It was the sense of the Council that such action was not permissible since the JOURNAL is one of the gratuities of membership in the Association and no subscription price is charged to members.

16. **Maternal Mortality.**—A letter was presented from Ellen Stadtmuller, Child Welfare Bureau, regarding the possibilities of publication of a report of the Maternal Mortality in California in 1928 prepared by the United States Children's Bureau.

Action by the Council.—On motion of King, seconded by Phillips and unanimously carried, the following resolution was adopted:

Resolved, That the letter be referred to the obstetricians of the Council with power to act.

17. **Medical Service Plans.**—The report of the Special Committee appointed to formulate a provision covering approval by county society members of any medical service plan.

Full discussion was had of the difficulties experienced in the larger counties in securing a two-thirds vote of the members.

It was the sense of the Council that the matter of Principles for Medical Service plans be discussed in full at the Wednesday Council meeting.

Discussion was then had of the allocation of expense entailed in the formulation of plans for medical service. It was pointed out that once the basic details and necessary documents for any medical service or hospital plan were prepared, they could be adopted with slight revision by any county medical society. It was felt that recommendations on basic details and documents should come from the Department of Public Relations to the Council.

After full consideration, the Special Committee was instructed to revamp its resolution on forms, basic

principles and expense of medical service plans and present the matter for discussion at the Wednesday meeting.

18. **Amendments to Constitution.** — The General Counsel presented amendments to the by-laws, made necessary by the proposed amendments to the constitution, the resolution presented at the last annual session providing for a Committee on Public Relations.

It was the sense of the Council that the amendments proposed by the General Counsel be presented at the first meeting of the House of Delegates.

19. **Corporate Practice.**—Resolutions deploring the practice of medicine by hospitals, lay individuals, groups and corporations for profit, were presented from the Sections on Anesthesiology, Bacteriology, Pathology, and Radiology.

It was the sense of the Council that the resolution be included in the report of the Council for presentation at the first meeting of the House of Delegates.

20. **Senate Bill 674.**—Senate Bill 674, regulating the disposition of animals, was discussed, and on motion of Gibbons, seconded by Ullmann and unanimously carried, the following resolution was adopted:

Resolved, That Doctor Kress prepare a resolution embodying the opposition of the Association to Senate Bill 674, for presentation at the first meeting of the House of Delegates.

21. **Adjournment.**—There being no further business, the meeting adjourned.

T. Henshaw Kelly, *Acting Chairman.*
Emma W. Pope, *Secretary.*

Minutes of the Two Hundred and Sixteenth Meeting of the Council of the California Medical Association

The following minutes were approved by the Council at its two hundred and seventeenth meeting, held at Del Monte, California, April 27, 1933.

Held in Room 723, Hotel Del Monte, Del Monte, California, Tuesday, April 25, 1933, at 2:30 p. m.

Present. — Doctors Joseph M. King, president; George G. Reinle, president-elect; Edward M. Pallette, Speaker; T. Henshaw Kelly, chairman Executive Committee; Councilors W. W. Roblee, William Dufield, H. J. Ullmann, Fred R. DeLappe, A. L. Phillips, K. L. Schaupp, R. A. Peers, H. A. Rogers, G. G. Hunter, H. E. Zaiser, W. H. Kiger, M. R. Gibbons; Secretary Emma W. Pope, Editor George H. Kress, Director W. M. Dickie, and General Counsel Peart.

Absent.—Doctors O. D. Hamlin, chairman of Council, on account of illness; and J. B. Harris, on Association business.

1. **Call to Order.**—The meeting was called to order by the acting chairman, T. Henshaw Kelly.

2. **Adjournment.**—There being no business demanding immediate action, adjournment was taken until Wednesday at 2:30 p. m.

T. Henshaw Kelly, *Acting Chairman.*
Emma W. Pope, *Secretary.*

Minutes of the Two Hundred and Seventeenth Meeting of the Council of the California Medical Association

The following minutes were approved by the Council at its two hundred and eighteenth meeting, held at Del Monte, California, April 27, 1933.

Held in Room 723, Hotel Del Monte, Del Monte, California, Wednesday, April 26, 1933, at 2:30 p. m.

Present. — Doctors Joseph M. King, president; George G. Reinle, president-elect; Edward M. Pallette, Speaker; T. Henshaw Kelly, chairman Executive Committee; Councilors W. W. Roblee, William Dufield, H. J. Ullmann, Fred R. DeLappe, A. L. Phillips, K. L. Schaupp, R. A. Peers, H. A. Rogers, G. G. Hunter, H. E. Zaiser, W. H. Kiger, M. R. Gibbons; Secretary Emma W. Pope, Editor George H. Kress, Director W. M. Dickie, and General Counsel Peart.

Absent.—Doctors O. D. Hamlin, chairman of Council, on account of illness; and J. B. Harris, on Association business.

1. **Call to Order.**—The meeting was called to order by the acting chairman, T. Henshaw Kelly.

2. **Minutes of the Council.**—Minutes of the two hundred and fifteenth and two hundred and sixteenth meetings of the Council were read by the secretary.

Action by the Council.—On motion of Ullmann, seconded by Rogers and unanimously carried, the following resolution was adopted:

Resolved, That the minutes of the two hundred and fifteenth and two hundred and sixteenth meetings of the Council be approved as read.

3. **Medical Service Principles.**—The special committee appointed to study and revise the Principles for Medical Service presented its recommendations for consideration.

Principle No. 2 of the Principles for Medical Service was discussed and was amended to read as follows: "Medical and hospital service shall be considered separately from indemnity for disability."

Principle No. 5, reading: "Professional service under any plan adopted shall be limited to the membership of a component county medical society or groups thereof endorsed through its official organization by a two-third's majority of all its members" was discussed in detail.

Action by the Council.—On motion of Pallette, seconded by Ullmann and unanimously carried, the following resolution was adopted:

Resolved, That Principle No. 5 be changed to read: "Professional service under any plan adopted shall be limited to the membership of a component county society or groups thereof, and no plan for medical and/or hospital service shall be recognized until it has received the endorsement of the Council after its approval by (1) the affirmative vote of two-thirds of the members of such society provided in the case of a county society having a membership of 450 or over, the affirmative vote of two-thirds of the members voting, provided that a majority of all the members vote, shall be sufficient for approval; and (2) the Committee on Public Relations.

"The vote of the membership of the component county society herein provided for shall be had at a meeting of the members or by mail only after due written notice of the details of the proposed plan and time and place of the meeting or vote shall have been given to all members.

"Upon the approval of any plan by such vote the secretary of the component county society shall transmit the plan with full details and the result of the vote of the approval thereon to the secretary of the Association, who shall refer the matter to the Committee on Public Relations for its consideration and action. The Committee on Public Relations shall report its action thereon to the Council.

"The endorsement of the Committee on Public Relations and the approval of the Council in considering any plan shall take into consideration established ethics and the provisions of the Medical Practice Act."

Plan (*d*) recommendation II reading: "A plan for rendering both medical and surgical service by such medical service firm and hospital service by an organization controlled and operated by a hospital" was discussed.

Action by the Council.—On motion duly made, seconded and unanimously carried, the following resolution was adopted:

Resolved, That after due consideration of the development of hospital and medical service plans since the adoption of the types of service by resolution adopted September 24, 1932, that type "D" shall be referred to the Committee on Public Relations for study and further recommendation to the Council.

Further discussion was had of the formulation and expense entailed in the development of detailed structure and legal instruments to inaugurate medical and hospital service plans.

Action by the Council.—On motion of Hunter, seconded by Pallette and unanimously carried, the following resolution was adopted:

Whereas, The development of the detailed structure and legal instruments necessary to inaugurate medical and/or hospital service plans is a part of the Association's program undertaken on the recommendation of the Committee on Public Relations, and such detail and instruments will be applicable to all component county societies desiring to avail themselves thereof; now, therefore, be it

Resolved, That the reasonable expense entailed by this development shall be paid by the Association in and at the discretion of the Council.

4. **Next Annual Session.**—Invitations for the 1934 annual session were presented from Yosemite, San Francisco, Oakland, Long Beach, Pasadena and Riverside, and full discussion of the desirability of the various localities was had.

A ballot was then taken and Riverside, having received the majority of the votes cast, was declared the place of the 1934 annual session.

5. **Standing Committees.**—The report of the Special Committee on Nominees for Standing Committees was presented by Doctor Schaupp and discussed by the Council.

Resignations were accepted from Lyell C. Kinney, Committee on Medical Economics; Daniel Crosby, Committee on Industrial Practice; and William Duffield, Committee on Public Policy and Legislation.

The membership of the standing committees was then discussed in detail and on nominations duly made and seconded, elections were had to fill all vacancies on standing committees, and the following membership was approved for presentation to the House of Delegates:

Committee on Associated Societies and Technical Groups.

R. Manning Clarke, chairman	Los Angeles	1934
Clifford Sweet	Oakland	1935
William H. Geistweit	San Diego	1936

Committee on Extension Lectures.

Robert T. Legge, chairman	Berkeley	1934
James F. Churchill	San Diego	1935
J. Homer Woolsey	San Francisco	1936

Secretary ex officio.

Committee on Health and Public Instruction.

Langley Porter	San Francisco	1934
Fred B. Clarke, chairman	Long Beach	1935
W. R. P. Clark	San Francisco	1936

Committee on History and Obituaries.

George D. Lyman	San Francisco	1934
Charles D. Ball, chairman	Santa Ana	1935
J. Marion Read	San Francisco	1936

Secretary ex officio.
Editor ex officio.

Committee on Hospitals, Dispensaries and Clinics.

Karl Schaupp	San Francisco	1934
John C. Ruddock	Los Angeles	1935
Daniel Crosby, chairman	Oakland	1936

Committee on Industrial Practice.

Harry E. Zaiser	Orange	1934
Morton R. Gibbons, chairman	San Francisco	1935
Mott H. Arnold	San Diego	1936

Committee on Medical Defense.

Henry Snure, chairman	Los Angeles	1934
George G. Reinle	Oakland	1935
Fred R. DeLappe	Modesto	1936

Committee on Medical Economics.

Willard Stone	Pasadena	1934
John H. Graves, chairman	San Francisco	1935
William R. Molony, Sr.	Los Angeles	1936

Committee on Medical Education and Medical Institutions.

H. A. L. Ryfkogel	San Francisco	1934
George Dock, chairman	Pasadena	1935
George G. Hunter	Los Angeles	1936

Committee on Membership and Organization.

LeRoy Brooks	San Francisco	1934
Harry H. Wilson, chairman	Los Angeles	1935
Dewey R. Powell	Stockton	1936

Secretary ex officio.

Committee on Publications.

Percy T. Magan, chairman	Los Angeles	1934
Ruggles A. Cushman	Talmage	1935
Frederick F. Gundrum	Sacramento	1936

Secretary ex officio.
Editor ex officio.

Committee on Scientific Work.

Lemuel P. Adams	Oakland	1934
J. Homer Woolsey	San Francisco	1935
F. M. Pottenger	Monrovia	1936

Hilmer, O. Koefod, Santa Barbara, secretary of Section on General Medicine, ex officio.
Edwin M. Taylor, Oakland, secretary of Section on General Surgery, ex officio.
Emma W. Pope, chairman, ex officio.

Committee on Public Policy and Legislation.

E. T. Remmen	Glendale	1934
Junius B. Harris, chairman	Sacramento	1935
Fred R. DeLappe	Modesto	1936

President ex officio.
President-elect ex officio.

Special Committee on Clinical and Research Prizes.

Eugene S. Kilgore	San Francisco	1934
Arthur L. Bloomfield	San Francisco	1935
George Dock, chairman	Pasadena	1936

6. **Committee on Physical Therapy.**—A request from the Committee on Physical Therapy for the appointment of a specific sixth member to the committee was presented.

Action by the Council.—On motion, duly made, seconded and carried, the matter was tabled.

7. **Senate Bill 2190.**—The General Counsel presented the amendments proposed to Senate Bill 2190.

It was the sense of the Council that Mr. Peart be authorized to revise the amendments in accordance with his best judgment.

8. **Narcotics.**—A telegram was presented from the superintendent of the Narcotic Hospital at Spadra thanking the Association for its assistance in saving Spadra from abolishment.

9. **Woman's Auxiliary.**—A resolution adopted by the Woman's Auxiliary thanking the Association for its coöperation was presented. The resolution asked that full consideration be given in the future to the securing of a suitably quiet room for the meetings of the auxiliary.

10. **Senate Bill 674.**—Doctor Kress read a telegram which had been sent by Dr. Joseph M. King to the Assembly Committee on Public Health and Quarantine in accordance with a resolution adopted at the fourth general session.

11. **Advertising Agent.**—Discussion was had of advertising in Southern California.

It was the sense of the Council that Doctor Kress and the Los Angeles Councilors be authorized to contact Mr. Butterworth and endeavor to secure his consent to abrogate the six months' notice of termination clause in the contract and that they discuss the possibilities of having the advertising agent for the "Los Angeles County Medical Association Bulletin" handle advertising in Southern California for the JOURNAL.

12. **Los Angeles General Hospital.**—Discussion was had of the action of the Board of Supervisors of Los Angeles in instructing the executive superintendent of the Los Angeles Hospital to make a survey of the facilities available at the hospital for the care of veterans.

It was the sense of the Council that this was a local matter.

13. **Office Staff.**—On motion of Gibbons, seconded by Duffield and unanimously carried, it was

Resolved, that the secretary and her staff be permitted a holiday until Monday, May 1.

14. **Charters to County Societies.**—It was the sense of the Council that the District Councilors of the districts in which new county societies were authorized be delegated to present the charters and arrange for the organization meetings of the societies.

T. HENSHAW KELLY, *Acting Chairman.*
EMMA W. POPE, *Secretary.*

Minutes of the Two Hundred and Eighteenth Meeting of the Council of the California Medical Association

The following minutes were approved by the Council at its two hundred and eighteenth meeting, held at Del Monte, California, April 27, 1933.

Held in Room 723, Hotel Del Monte, Thursday, April 27, 1933, at 9 a. m.

Present.—Doctors G. G. Reinle, president; Clarence G. Toland, president-elect; E. M. Pallette, Speaker; T. Henshaw Kelly, chairman of Council; Councilors W. W. Roblee, C. R. Howson, H. J. Ullmann, F. R. DeLappe, A. L. Phillips, H. A. Rogers, G. G. Hunter, W. H. Kiger, M. R. Gibbons; Editor George H. Kress, Secretary-Treasurer Emma W. Pope, and General Counsel Peart.

Absent.—Doctors O. D. Hamlin on account of illness and J. B. Harris on Association business at Sacramento, and Councilors C. O. Tanner, and E. E. Schoff.

1. **Call to Order.**—The meeting was called to order by the acting chairman, T. Henshaw Kelly.

2. **Minutes of the Council.**—Minutes of the two hundred and sixteenth and two hundred and seventeenth meetings of the Council were read by the secretary, and on motion duly made, seconded and carried, were approved as amended.

3. **Election of Chairman of Council.**—The acting chairman, T. Henshaw Kelly, stated that the first order of business was the election of a chairman of the Council for the ensuing year.

Oliver D. Hamlin was nominated by Morton R. Gibbons, seconded by George H. Kress, as chairman of the Council for the ensuing year.

RESIGNATION OF DR. O. D. HAMLIN—RESOLUTION

Doctor Reinle stated that just before he left Oakland for the meeting Doctor Hamlin had called him and requested that if his name were presented for the office of chairman of the Council, Doctor Reinle was to express to the Council Doctor Hamlin's request to be relieved of the work of this office on account of other activities.

Action by the Council.—On motion of Gibbons, seconded by DeLappe, and unanimously carried, the following resolution was adopted:

Whereas, For many years Oliver D. Hamlin has loyally and assiduously served the California Medical Association as councilor and as chairman of the Council of the Association; and

Whereas, The press of professional and personal affairs and duties has brought him to the irrevocable decision that he can no longer devote the time to the duties of chairman of the Council that his devotion to the welfare of the California Medical Association makes him feel necessary; and

Whereas, He has instructed his old friend and colleague, George Reinle, to withdraw his name from nomination as chairman of the Council for the above reasons; therefore be it

Resolved, That the Council of the California Medical Association grant his request, made by Doctor Reinle, and express its regret that he feels such a step necessary; and be it further

Resolved, That the Council express to him its thanks and appreciation of his service as chairman and its pleasure that he is to remain as a member of the Council from the seventh councilor district.

* * *

T. Henshaw Kelly was then nominated by George H. Kress, seconded by George G. Hunter. Fred R. DeLappe moved that the nominations be closed and the ballot of the Council be cast for Doctor Kelly. Such motion was seconded by George G. Reinle, and carried.

The ballot was cast and the election of T. Henshaw Kelly as chairman of the Council for the ensuing year was announced.

4. **Election of Vice-Chairman.**—Morton R. Gibbons was nominated by William H. Kiger as vice-chairman of the Council for the ensuing year; such nomination was seconded by F. R. DeLappe. George G. Hunter moved that the nominations be closed and the secretary be instructed to cast the ballot; such motion was seconded by Alfred L. Phillips, and carried.

Emma W. Pope, secretary *pro tem,* cast the ballot and T. Henshaw Kelly announced the election of Morton R. Gibbons as vice-chairman of the Council for the ensuing year.

5. **Retiring Officers of Association.**

Action by the Council.—On motion duly made, seconded and unanimously carried, the following resolution was made:

Whereas, Joseph M. King has completed his terms as president and president-elect and is now no longer a member of the Council; and

Whereas, During his membership in the California Medical Association he has given unswerving service to medicine in California; and

Whereas, During his years as president-elect and president, despite his health, he has served the California Medical Association with a devotion second to none; therefore be it

Resolved, That the Council express to him its regret at his absence from its future meetings this year and its thanks for and deep appreciation of his accomplishments on behalf of medicine and the California Medical Association.

* * *

Action by the Council.—On motion duly made, seconded and unanimously carried, the following resolution was made:

Whereas, The Council of the California Medical Association, as it meets to organize for the year 1933-1934, finds William Duffield of Los Angeles and Robert A. Peers of Colfax no longer members by their own will; and

Whereas, They have, by their cordial and effective coöperation, added to the enjoyment of the work of their fellow councilors and to the success of the California Medical Association; therefore be it

Resolved, That the Council express its regret that Doctor Duffield's health and Doctor Peers's other duties have made necessary their retirement from the Council and its deep appreciation of their friendship and the services that they have rendered to medicine in California and to the California Medical Association; and be it further

Resolved, That it express the hope to Doctor Duffield that he will soon recover from the illness that prompts his retirement and to Doctor Peers that he will not always be so busy that the Council may welcome them both again.

6. **Election of Secretary-Treasurer.**—Emma W. Pope was nominated by Henry J. Ullmann as secretary-treasurer for the ensuing year; such nomination was seconded by Alfred L. Phillips. George G. Hunter moved that the nominations be closed, and the chairman cast the ballot; such motion was seconded by M. R. Gibbons, and carried.

The chairman cast the ballot and announced the election of Emma W. Pope as secretary-treasurer of the Association for the ensuing year.

7. **Election of Editor.**—George H. Kress was nominated by Edward M. Pallette, seconded by William Roblee, as editor of the JOURNAL for the ensuing year. George G. Reinle moved that the nominations be closed and the secretary be instructed to cast the ballot; such motion was duly seconded, and carried.

The secretary cast the ballot and the chairman announced the election of George H. Kress as editor of the JOURNAL for the ensuing year.

8. **Election of Director of the Department of Public Relations.**—It was stated that a temporary appointment should be made of a Director of the Department of Public Relations for the interim between this meeting of the Council and the time at which the recommendation of the Committee on Public Relations for the office of the Director of the department is received.

Action by the Council.—On motion of Gibbons, seconded by Pallette and unanimously carried, the following resolution was adopted:

Resolved, That Walter M. Dickie be elected Director of the Department of Public Relations pending the receipt of the recommendation of the Committee on Public Relations for the office of Director of Public Relations.

9. **Appointment of General Counsel.**—On motion of Rogers, seconded by Ullmann and unanimously carried, the following resolution was adopted:

Resolved, That Hartley F. Peart be appointed general counsel for the ensuing year.

10. **Appointment of Associate General Counsel.**—On motion of Hunter, seconded by Gibbons and unanimously carried, the following resolution was adopted:

Resolved, That Hubert T. Morrow be appointed associate general counsel for the ensuing year.

11. **Committees of Council.**—The chairman stated that he wished to give thought to the membership of the committees and the work entailed before appointing the members of the Auditing Committee and the Arrangements Committee for the next annual session.

12. **Cancer Commission.**—The president stated that he had appointed as members of the Cancer Commission, Doctors Clarence G. Toland of Los Angeles, Harold Brunn of San Francisco, and Henry J. Ullmann of Santa Barbara. The appointments as presented were approved by the Council.

13. **Date of Next Council Meeting.**—Discussion was had of the date of the next meeting of the Council. It was pointed out that the members of the Trustees Of The California Medical Association, all of which were members of the Council, according to constitutional provision, would meet in San Francisco on May 27.

Action by the Council.—On motion of Gibbons, seconded by DeLappe and unanimously carried, the following resolution was adopted:

Resolved, That the next meeting of the Council be held at San Francisco on May 27, 1933.

14. **Topics for Discussion at Councilor Visits to County Societies.**—Discussion was had of suitable topics for discussion by councilors when visiting county societies.

The members of the Council felt that an explanation should be made to members of the work of the legal department, the Committee on Public Policy and Legislation, the work that had been done on medical service and hospital plans.

Doctor Reinle suggested that, in accordance with the recommendations of the Committee on Expenditures of the Association, a letter be sent to the county societies at frequent intervals giving an outline of the activities of the Association.

It was the sense of the Council that Doctors Kelly, Pope, and Mr. Peart be authorized to formulate a letter to be sent to councilors giving suggestions for discussions at county medical societies during councilor visits.

15. **Publicity Man.**—Doctor Reinle stated that at the suggestion of Doctor King he had contacted certain northern council members before the annual session regarding the advisability of having a publicity man present at the Del Monte session and that upon their approval had requested the publicity agent for the Alameda County Medical Society to be present and handle the publicity of the annual session. Doctor Reinle stated that the financial arrangement agreed upon had been the payment of $100 and expenses.

It was the sense of the Council that the bill be paid.

Doctor Rogers pointed out the value of ethical publicity in small out-of-town newspapers in molding public opinion.

Discussion was had of the value of a publicity agent for the Association.

Action by the Council.—On motion of Ullmann, seconded by Hunter and carried, the following resolution was adopted:

Resolved, That the matter of a publicity man at a small annual salary be referred to the Committee on Public Relations for investigation and report at the next meeting of the Council.

16. **Association Offices.**—Consideration was had of the rent of the Association offices as referred to the Council by the House of Delegates in its consideration of the report of the Committee on Survey of Expenditures.

Doctors Howson and Roblee stated that certain economies recommended in the report had been suggested to meet a possible reduction of income on account of an anticipated yearly assessment of $8, but that in view of the fact that no reduction in dues had been made, it would be well to consider carefully the economies proposed by combination of the offices of the Association with those of the Department of Public Relations and the Cancer Commission. It was pointed out that the recommendations of the delegates and Council called for increased activity in the department.

Discussion was had of the securing of space in the building of the San Francisco County Medical Society.

It was felt that careful thought should be given before moving the Department of Public Relations, whose lease has expired, to a location too remote from the Association office, whose lease has yet fifteen months to run. It was the sense of the Council that the matter of securing smaller space for the department in the same building as the Association offices be investigated.

Action by the Council.—On motion of Ullmann, duly seconded and carried, the following resolution was adopted:

Resolved, That a committee be appointed by the chairman to study the feasibility and advisability of moving the Department of Public Relations and/or the Association offices to the building of the San Francisco County Medical Society and that a report be made to the Council.

It was stated that the report should include terms, space available, etc.

A vote was taken on the motion. Five voted in the affirmative and six voted in the negative. Motion lost.

It was the sense of the Council that one competent secretary only be employed to care for the work of the Department of Public Relations and the Cancer Commission.

17. **Lane and Barlow Medical Libraries.**—Discussion was had of the donations made to Lane and Barlow Medical Libraries. It was felt these donations could be continued under the present dues for the present year.

Action by the Council.—On motion of Roblee, seconded by Gibbons and unanimously carried, the following resolution was adopted:

Resolved, That the donations to Lane and Barlow Medical Libraries of 25 cents per member be continued.

18. **California and Western Medicine.**—Discussion was had of the advisability of reducing the size of the JOURNAL sixteen pages.

Action by the Council.—On motion of DeLappe, seconded by Roblee and unanimously carried, the following resolution was adopted:

Resolved, That on account of the necessity of publication of annual session papers and transactions of the Association the present size of the JOURNAL be continued until further action by the Council.

19. **Committee on Public Policy and Legislation.**—Discussion was had of expense of the Committee on Public Policy and Legislation, and it was the sense of the committee that President Reinle and Chairman Kelly be vested with authority to authorize expenditures for traveling expense, telephone calls, telegrams and accessory incidentals, in this connection.

20. **Senate Bill 539.**—Doctor Hunter presented a resolution which he desired sent to members of the legislature regarding Senate Bill 539. The telegram as read was approved by the Council.

21. **Veterans' Hospitals.**—Doctor Gibbons presented a telegram which he desired sent to the President of the United States regarding veterans' hospitals.

It was the sense of the Council that the telegram include all contemplated hospitals.

22. **Minutes of the Council.**—The minutes of the two hundred and eighteenth meeting of the Council were approved as read.

T. HENSHAW KELLY, *Acting Chairman.*
EMMA W. POPE, *Secretary.*

COMPONENT COUNTY MEDICAL SOCIETIES

CONTRA COSTA COUNTY

The second monthly meeting of the Contra Costa County Medical Society was held on the evening of Tuesday, February 14, at the Hotel Carquinez, Richmond, Dr. L. H. Fraser presiding.

A communication from the Public Health Association of Contra Costa County was read, remarked upon favorably by Doctor Rowell, and a motion was made by Dr. Rosa Powell, seconded by Doctor Keser, to the effect that the lung clinics be continued in this county, giving them the endorsement of the County Medical Society. The motion was passed, and the matter referred to the Committee on Public Policy, Dr. H. G. Ford, chairman, for drafting a resolution covering the matter.

The application of Dr. John Fitzgerald of Martinez was reported upon favorably by the censors and he was voted into membership.

Two exceptionally fine papers were presented by guest speakers: the first, ***Sinusitis in Children,*** was by Dr. Roy Nelson of Oakland. Discussion followed by Doctors Harry Ford, R. J. P. Harmon, C. R. Blake, John Beard, and closed by Doctor Nelson. The second paper was read by Dr. William Wood of Oakland on ***Practical Aspects of Pediatrics as Encountered by the General Practitioner.*** The discussion was by Doctors Clara H. Spalding and McCullough, and closed by Doctor Wood.

Doctor Fraser made a short report on the recent meeting held at the Claremont Country Club, Oakland, by the Napa County Medical Society, which was attended by eight members of our society. Doctor Fraser announced that the next meeting will be held at Pittsburg.

The meeting was adjourned at 10:45. An enjoyable informal half-hour, with a buffet luncheon, followed.

* * *

The March meeting of the Contra Costa County Medical Society was held jointly with the Woman's Auxiliary on the evening of Tuesday, March 13, at the Los Medanos Hotel, Pittsburg.

Dinner and entertainment of a most unusual interest, preceded the regular meeting. Doctor Fraser introduced Dr. M. L. Fernandez, who then showed reels of travel pictures which he had taken on his trip through the Hawaiian Islands, Fiji, Bali, New Zealand, New Guinea, Borneo, Siam, China, Japan, and the Philippines. Some of the pictures were in black and white, others in color. The delightful way in which Doctor Fernandez explained the temples and the trips gave those present a unique treat.

As the meeting was purely social, all routine business was suspended.

The thanks of the society is due Doctor Stauffer, who served as chairman of the Committee on Arrangements.

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The April meeting of the Contra Costa County Medical Society was held on Tuesday, April 11, with the members of the Solano County Medical Society as guests.

The scientific paper of the evening was presented by Dr. Harold H. Hitchcock of Oakland. His theme was ***Some Orthopedic Principles Involved in the Treatment of Fractures.***" The subject was most ably presented, and the animated and extensive discussion which followed proved its deep interest. The discussion was conducted by Doctors Longabaugh and Fry of Solano, Higler of Napa, and U. S. Abbott, J. McCullough, and C. Leggo of Contra Costa. Doctor Fraser expressed the thanks of the joint societies to Doctor Hitchcock for the delightful scientific treat of the evening.

Doctor Fry, president of the Solano County Medical Society, expressed the pleasure of his society at being invited to attend the Contra Costa County meeting, remarking that there had not been a joint meeting between our two adjoining county medical societies since 1904.

The following communications were read by the secretary:

Letter and resolution from the California Medical Association protesting the abolition of the State Narcotic Enforcement Laws, and the rehabilitation work. This was referred to the Committee on Public Policy and Legislation, Dr. Harry G. Ford, chairman.

Resolution from the Solano County Medical Society protesting against civilian practice by the naval officer detailed by the United States Navy Department to the care of the dependents of naval veterans. This was explained by Doctor Longabaugh of Vallejo, remarked upon by Dr. Harry Ford of Richmond, and by Dr. C. Leggo of Crockett. A motion was made by Dr. H. G. Ford and seconded by Dr. C. Leggo that the Contra Costa County Medical Society go on record as endorsing the measure, and that the secretary be instructed to forward copies of this endorsement to the various bodies to which the Solano County Medical Society had sent their resolution. Motion carried.

A card of thanks from Mrs. R. J. P. Harmon for the flowers sent her during her recent illness by the society.

Application for membership in the society by Dr. William Powell was read and acted upon favorably.

A report was made on the improved health of Doctor Hely, who has been ill for months; the return to active duties of Doctor Nevius, who has had a recent attack of pneumonia; and of the illness of Dr. Rosa Powell.

Announcements were made by Doctor Fraser of the State Medical Convention to be held at Del Monte this month, of several committee meetings, and the information that our next meeting will be held in Richmond.

The attendance was twenty-five.

The meeting was adjourned at 10:18 by Doctor Fraser, after which refreshments and a social meeting followed.

CLARA H. SPALDING. *Secretary.*

ORANGE COUNTY

The regular April meeting of the Orange County Medical Association was held at the American Legion Club in Fullerton, where a seven-o'clock dinner was enjoyed by the members. Following the meal the members adjourned to the hall, where the regular business meeting was held before the scientific program.

Dr. John Ball, as chairman, had arranged for the presence of Dr. John C. Wilson of Los Angeles, who gave a highly instructive talk, demonstrated by numerous slides, on ***Fractures and Diseases About the Hip.*** The differential diagnosis of several diseases involving this region was well brought out, as well as newer methods of treatment and surgery.

WALDO WEHRLY, *Secretary.*

SAN BERNARDINO COUNTY

The San Bernardino County Medical Society held its meeting at Loma Linda on Tuesday, April 4.

About seventy members and guests were present at dinner, which was served at 6:30 p. m. While dinner was in progress a representative from the Ruth Protective Home in El Monte spoke of the work of that institution.

Dr. Harold Walton, superintendent of the hospital at Loma Linda, welcomed the visitors.

The business meeting was called to order at 7:45 p. m. The application for membership for Dr. W. T. Engelman was voted on and accepted. The question of the adoption of the new Constitution and By-Laws was voted on and unanimously carried.

The nominations for officers for the next year were read and nominations called for from the floor, but none were made. The nominations are as follows:

President, C. L. Emmons; first vice-president, E. H. Hull; second vice-president, H. G. Gentry; secretary-treasurer, E. J. Eytinge. Delegates—F. B. Moor, A. T. Gage, C. F. Whitmer. Alternates—E. H. Hull, F. F. Abbott, H. G. Gentry.

The program of the evening followed: *Diagnosis of Ovarian Dysfunction* by Lee Samuels, Ph. D. Discussion opened by Dr. F. W. Gardner. *Review of Recent Laboratory Methods* by Dr. Charles M. Dale. Discussion opened by Dr. F. F. Abbott. *Some Aspects of Treatment of Congestive Heart Failure"* by Dr. E. H. Ehlers. Discussion opened by Dr. Donald Brumbaugh.

E. J. EYTINGE, *Secretary.*

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SANTA BARBARA COUNTY

The regular meeting of the Santa Barbara County Medical Society was held in the Bissell Auditorium of the Cottage Hospital on Monday, April 10, at 8 p. m., Vice-President Edward L. Markthaler presiding.

The vice-president introduced the speaker of the evening, Dr. Douglas R. Drury, professor of physiology, University of Southern California School of Medicine, who gave a most instructive talk on *Recent Advances in Physiology.* The paper was discussed by Doctors Smith, Sansum, and Gray.

Doctor Friedell reported for the committee which investigated the Santa Maria hospital. The society unanimously adopted the report, and instructed the secretary to forward a copy of these recommendations to the Board of Supervisors.

Doctor Henderson reported for the Public Relations Committee and read a communication from Doctor Dickie regarding proposed legislation to control clinics. After some discussion it was moved, seconded and carried that the Public Relations Committee be empowered to endorse this action and any other action of the legislative committee of the state society.

WILLIAM H. EATON, *Secretary.*

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SONOMA COUNTY

The meeting of the Sonoma County Medical Society for the month of April was held as a dinner at the Clover Inn, in Cloverdale.

Eleven members of the Mendocino County Medical Society, two from Lake County, three from Napa County, two from San Francisco, including the guest speaker, Dr. William B. Faulkner, Jr., from the surgical staff of Saint Mary's Hospital, with twelve members of the Sonoma County Society made up the group.

A good dinner was enjoyed, following which Doctor Faulkner gave an illustrated talk upon the subject of *Chest Injuries and Their Treatment.* All present expressed themselves as being highly pleased with the meeting. It gave members from five counties a chance to meet one another personally, exchange views, and receive beneficial instruction in a very important branch of the medical and surgical service of modern life.

W. C. SHIPLEY, *Secretary.*

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TULARE COUNTY

The regular monthly meeting of the Tulare County Medical Society was held at Motley's Café, dinner preceding the meeting. Doctor Kohn, president, presided.

Various communications were read regarding recent legislation at Sacramento.

Doctor Fowler, chairman of the Membership Committee, introduced the two newly elected members, Dr. John R. Fillmore of Strathmore and Dr. C. S. Mitchell of Dinuba.

Dr. Stacy R. Mettier, hematologist at the University of California, was guest speaker and ably presented papers on *Pernicious Anemia* and *Simple Chronic Anemia.* Considerable discussion followed, giving evidence of a lively interest in these problems.

KARL F. WEISS, *Secretary.*

VENTURA COUNTY

The meeting of the Ventura County Medical Society was held in the clinic building of the Ventura County Hospital on March 14. Dr. F. Royal Hendricks called the meeting to order at 8 p. m.

A communication from the Southern California Surgical Appliance Association in reference to Assembly Bills No. 1924 and No. 313 was read. Moved, seconded and passed that this society go on record as opposed to both of these bills.

A communication from the Cancer Commission inviting members to Del Monte on April 23 was read and the secretary instructed to send names of members that would attend.

A resolution from the California Medical Association protesting the abolition of the State Narcotic Enforcement Laws was read.

A communication from the Council of the California Medical Association on physical therapy was read and tabled.

A communication from the Cancer Commission asking for about fifteen minutes on a meeting program to present one or more of their reports, was read. It was acted on favorably for a near future date.

Dr. W. S. Clark was appointed program chairman for the April meeting.

WILLIAM FELBERBAUM, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (56)

Alameda County.—Hubert Edward Long, James C. Raphael, J. R. Masterson, G. Douglas Ream.

Fresno County.—William F. Chamlee, Raymond R. Scott, James Harrison Van Vorhis.

Kern County.—George O. H. Buchner, R. B. Rees.

Los Angeles County.

Arthur Wesley Allum
Willa A. Cameron
Edward R. Cox
Ben Franklin Feingold
Victor Goldberg
Milton Metcalfe Hare
R. F. Hastreiter
Earl Hyman
Francis Theodore Johnson
Edward J. Kilfoy
William M. Maloney
Jacob Holt McCracken
Edward Choate Pallette
Michael L. Ravitch
Emmett LeRoy Schield
George Stevenson Sharp
Phil W. Shumaker
Valentine St. John
Pierre J. Walker
Sidney L. Weinberg
J. E. Whitlow
Blaine A. Young

Marin County.—Anne Lucille Brady, David Gordon Schmidt.

Napa County.—Fred Didier Heegler.

Orange County.—Frank Ashmore, E. F. Bruning, Fred Earel, Paul Bernard Gillespie, Howard Adam Huenergardt, Arthur Nies, F. W. Weston.

Riverside County.—Mary Catherine Baldwin, Joseph Jennings H. Smith, B. Gene Morris.

San Francisco County.—Henrietta Damkroeger, Louis Roncovieri, Morris Richard Gordon, Charles Albert Shumate.

San Joaquin County.—Clarence Ing.

San Mateo County.—Edwin Joseph Kehoe, Roswell Donaldson Borley.

Santa Clara County.—Ralph Wesley Wright, John C. Silliman.

Sonoma County.—Byron Lee Baldwin.

Tulare County.—Charles Sutherland Mitchell, W. R. Bridgman, John Rollo Fillmore, Palmer Donald Miller.

Transferred (5)

Leo P. Bell, from Yolo to Sacramento County.

Ira O. Church, from Contra Costa to Alameda County.

Thomas W. Hagerty, from San Joaquin to Los Angeles County.

S. S. Kalman, from Placer to Alameda County.

L. G. Tyler, from Humboldt to Marin County.

In Memoriam

Dickerson, Wilmer Lambert. Died in Long Beach, March 23, 1933, age 77 years. Graduate of Rush Medical College, Chicago, 1893. Licensed in California, 1911. Doctor Dickerson was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

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Stivers, Charles Gaskill. Died in Long Beach, March 25, 1933, age 63 years. Graduate of the University of Pennsylvania School of Medicine, Philadelphia, 1891. Licensed in California, 1897. Doctor Stivers was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION*

Official Notice

Excerpt from President's Letter to County Auxiliaries

From time to time the state board passes certain rulings. These in turn are passed on to the county presidents. As these regulations are not a part of your Constitution or By-Laws, they are frequently lost in transit. The officers to whom they are given respect and accept them, but too often, in the change of officers, they are forgotten and omitted in the list of duties. With this in mind, the president is suggesting that each county president make it a part of her duty to keep a "policy book." This may be an inexpensive notebook in which is listed the requests and policies of the state board. This book should be given to the incoming officer, with such explanations as are necessary. Will you please do this, so as to help your auxiliary to keep the ground already gained. The construction of an organization is faulty when it takes a new officer two or three months to learn her duties.

MRS. F. E. COULTER, *President.*

Component County Auxiliaries

Alameda County.—Alameda County Auxiliary had two interesting meetings this spring. The meetings are held in the Women's Athletic Club, facing Lake Merritt. A half-hour's reception preceding the luncheon has done much to increase friendliness in the Alameda auxiliary. The privilege of one guest at each meeting has brought in many new members. Twelve joined in March, bringing the membership to over two hundred.

Programs, each alternate month, immediately follow luncheon, and are presided over by the president, Mrs. Charles E. Dukes.

At the January meeting Dr. Chauncey D. Leake spoke on *California's First Real Scientist,* Dr. James Blake. Doctor Blake was a most interesting and capable man who did much for the state along scientific lines in the early days of the gold rush. His work was especially appreciated at this time when so many undesirable characters came to this coast. Doctor Leake's humorous stories of early California history and the part that Doctor Blake played in this romance made a most enjoyable lecture, as well as inspiring us to know more about California's first real scientist.

A card party for members of the auxiliary and their friends, to start a philanthropic loan fund to aid doctors and their families who happen to be in need, was given in February. Mrs. Carl Bowen, Mrs. Frank Bowles, Mrs. W. F. Holcomb, and Mrs. George McClure opened their homes as hostesses for the affair, and almost $200 was raised.

The program for the regular March meeting was given by a member of the Alameda County Medical Association, Dr. Romilda Paroni Meads. Doctor Meads gave a most illuminating talk, illustrated by charts on the findings of the committee from the Julius Rosenwald Foundation, on *The High Costs of Medical Care.* She had many interesting charts, showing the comparison of costs of medical care with other things, as education, food, clothing, etc., and the members of our auxiliary appreciated very much having had the privilege of hearing the result of her research.

Health Center work, such as making clinical records for the doctors, is being carried on by eighteen members, under the direction of Mrs. L. B. Barnard, the work being done regularly once a month.

MRS. LOUIS H. DYKE.

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Los Angeles County.—The Woman's Auxiliary of the Los Angeles County Medical Society met at the Ebell Club on April 18, with a luncheon preceding the order of business. The president, Mrs. A. Bennett Cooke, presided.

The first in order was the ratifying of the appointment of delegates and alternates to the convention.

Mrs. Philip S. Doane presented a resolution that the secretary write a letter of appreciation to Dr. William B. Duffield for his recent articles commending the auxiliary.

Mrs. A. A. Swan, an artist of some note, was introduced and gave a short talk on *Seeing China Through Artists' Eyes.* She was followed by her husband Dr. Swan, a practicing physician in Shanghai for fifteen years, who spoke on the scientific side of China.

A discussion was led by Mrs. Cooke on *What Our Auxiliary Is Doing,* with especial emphasis on the distribution of *Hygeia* among the general public as a means of education and protection against cults. The speaker for the current events part of the program was Miss Ethel Swope, secretary of District 5, California State Nurses' Association, who talked on modern nursing. Miss Swope played an important rôle in organizing the relief work in Long Beach following the recent earthquake.

The meeting was brought to a close by a personal greeting of the new president by the individual members.

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Orange County.—The April meeting of the Orange County Medical Auxiliary took the form of a luncheon in honor of our state president, Mrs. F. E. Coulter, held at the Santa Ana Ebell on Tuesday, April 4, at one o'clock. A committee, including Mesdames D. R. Ball, H. G. Huffman, R. P. Yeagle, L. Cameron, Glen Curtiss, Arthur Robbins, K. H. Sutherland, Charles Petty, Danforth Cowles, Frank Chaplaine, and J. B. Price, prepared and served a delicious luncheon in the perfectly appointed rooms of the Santa Ana clubhouse.

A most interesting musical program was arranged by Mrs. Charles Curtiss, consisting of violin solos by Mr. Collis and vocal numbers by Gordon Drew, guest artists from Fullerton. Mrs. Harry May, accompanied by Mrs. Curtiss, sang a group of delightful spring songs.

Mrs. W. L. Mitchell, widow of the late Doctor Mitchell, first health officer in Santa Ana, was presented with an honorary membership in the county auxiliary.

Dr. Florence Keller, formerly on the university staff of New Zealand, speaker of the day, chose as her topic, *Literature.* She regretted that in America today there is an undercurrent of degrading literature,

* As county auxiliaries to the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Clifford A. Wright, chairman of the Publicity and Publications Committee, 454 South Irving Boulevard, Los Angeles. Brief reports of county auxiliary meetings will be welcomed by Mrs. Wright and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the editor to allocate one page in every issue for Woman's Auxiliary notes.

poisoning the minds of the youth and defaming the characters of national heroes.

The business meeting for the afternoon was postponed.

On March 4 the members of the auxiliary were guests at the Whittier State School. In the absence of Doctor Sabichi, Mr. Barton, together with Mrs. Sabichi and the Rev. Milton Lutz, conducted a most interesting and instructive tour of the shops, school quarters, and attractive cottages of the school. The various buildings were orderly, busy places, and each boy seemed happy in performing his individual task. There were no signs of the old traditional reform school. The cottages were tidy, well equipped and attractive homes for the children. One interesting group entertained the women with a program of music.

The Whittier plan included, first, a medical diagnosis, then educational, vocational, and recreational guidance, individual moral counseling, and a psychologic and psychiatric study of the boy's conflict.

The tour was followed by a delightful tea hour in the home of Mrs. Sabichi, with Mrs. Coulter and Mrs. Cushman assisting. A short business meeting followed, during which time plans were made for the luncheon to honor Mrs. Coulter. The committee appointed for the luncheon included Mesdames Dexter Ball (chairman), Huffman, Yeagle, Cameron, Curtis, Robbins, Sutherland, Petty, Price, Chaplaine, and Cowles. Thirty-five members and several guests were present.

YULA MOORE, *Secretary.*

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Riverside County.—The Woman's Auxiliary to the Riverside County Medical Society was delightfully entertained by Mrs. Paul F. Thuresson and Mrs. Erwin P. Miller at their two recent meetings,

Mrs. A. W. Walker, president, presided over a short business meeting. The auxiliary discussed plans for the Hospital Day program on May 12, which is to be sponsored by the auxiliary at the Riverside Community Hospital.

Mrs. Hervey S. Faris will represent the local auxiliary at the meeting of the California State Medical Association at Del Monte on April 24-27.

Dr. W. B. Wells, county health officer, addressed the group on public health problems in Riverside County in relation to doctors. Miss Frances Fraser, dean of women at Riverside Junior College, who is also president of the Riverside County Clinic, gave an interesting talk on nursing services in Riverside County.

IRENE S. BALL, *Secretary.*

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Sacramento County.—At the annual meeting of the Woman's Auxiliary to the Sacramento Society for Medical Improvement held on March 21 at the Tuesday clubhouse, Mrs. Frederick N. Scatena was re-elected as president. Other officers selected for the new term were: Mrs. J. Howard Hall, first vice-president; Mrs. Burt F. Howard, second vice-president; Mrs. Katherine Voisard, treasurer; Mrs. Frank P. Brendel, corresponding secretary; Mrs. George A. Foster, recording secretary; Mrs. A. K. Dunlap, Mrs. Lillian Arthur and Mrs. Paul Frame, directors.

Dr. Phillip G. Young, chairman of the Public Relations Committee of the Sacramento Medical Society, discussed the county charter and its relation to the medical profession.

Annual reports were submitted by the chairmen of committees. Mrs. Scatena reviewed the activities of the year and gave a report of a recent state board meeting held in Los Angeles. Delegates to attend the convention late in April at Del Monte will be elected at the next meeting. Members adjourned to the tea room, where refreshments were served by the following hostesses: Mesdames C. B. McKee, Eugene Pitts, S. G. Wells, Ernest Sevier, D. Schuyler Pulford, Paul Christman, Richard Soutar, James T. Vance, and Frank Brendel.

MRS. ERNEST SEVIER, *Secretary.*

San Diego.—The Woman's Auxiliary to the San Diego County Medical Association met in regular session at the Men's University Club. San Diego is another of the auxiliaries meeting for luncheon preceding the business session, over which Mrs. Charles E. Howard, president, presides. Plans were made for convention chairmen.

Mrs. H. P. Newman gave a clever current event review, the first of a series planned by the Program Committee.

Dr. F. C. Snoboda was the guest speaker of the day, using as the subject of his talk, *Medical Aviation.* This was most interesting and enlightening.

MRS. ELLIOTT G. COLBY, *Secretary.*

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San Joaquin County.—The Woman's Auxiliary to the San Joaquin County Medical Association have four meetings a year, this being the pleasure of the members. The time so far has been devoted largely to organization and becoming acquainted. Undoubtedly the future will show accomplishment of worthwhile work.

MRS. PERCY B. GALLEGOS, *Secretary.*

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Santa Barbara County.—The Woman's Auxiliary to the Santa Barbara County Medical Society met at the home of Mrs. Henry G. Profant, Mission Canyon, on Monday, April 10.

The guest speaker, Miss Jane Sedgewick, of the State Departments of Institutions and Finance, told practically the whole story of state institutions, interjecting her talk with only those statistics which had a definite bearing on her subject.

In the absence of Mrs. Friedell, chairman, Mrs. Profant gave the report of the Nurses' Award Investigating Committee. Mrs. Can Paing moved to base the award on efficiency as a nurse and not on leadership and scholarship. The secretary was instructed to write letters to Miss Helen Lord and Miss Marian Petchner, superintendents of our two nursing schools, telling them of the decision of the auxiliary.

Discussion of plans for an informal buffet supper, Dutch style, as a means for starting our Nurses' Award Fund, followed.

MABLE HUNT, *Secretary.*

NEVADA STATE MEDICAL ASSOCIATION

O. HOVENDEN, McGill ..... President
D. A. SMITH, Mina ..... President-Elect
J. N. VAN METER, Las Vegas ..... First Vice-President
FLEET H. HARRISON, Minden ..... Second Vice-President
HORACE J. BROWN ..... Secretary

COMPONENT COUNTY MEDICAL SOCIETIES

CLARK COUNTY

The Clark County Medical Society held its regular meeting on March 20 at the Apache Hotel, Las Vegas.

The meeting began with a dinner, and was attended by the members and their wives.

Dr. and Mrs. James F. Percy of Los Angeles were the guests of the evening.

At the business meeting a motion was passed authorizing the formation of a chapter of the Woman's Auxiliary.

Dr. James F. Percy addressed the meeting on *Cancer—Its Treatment and Prognosis.*

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The Clark County Medical Society met on Tuesday, April 11, for its regular monthly meeting.

Dr. Forest R. Mildren of Las Vegas presented the program with films: *Surgical Treatment of Peptic Ulcers, Ventral Hernia with Lipectomy on 450-Pound Woman.*

J. N. Van Meter, *Secretary.*

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WASHOE COUNTY

The Washoe County Medical Society held its regular monthly meeting in the Nevada State Building, Tuesday evening, April 11.

Doctor Creveling read a communication from Sacramento relative to the cost of hospitalization through means of a medical organization. The organization referred to was sponsored entirely by hospitals, dentists, and physicians, and not in any way connected with the lay organization. Inasmuch as the society could come to no conclusion in so brief a time, the president, Dr. A. R. DaCosta, instructed Dr. J. L. Robinson to communicate with the person designated who was representing the organization and inform him that the society would defer action until better informed.

The next communication was one reported by the secretary received from the Maternity Center Association of New York. After explanation from the secretary and upon his motion, properly seconded, it was moved that a joint committee be appointed by the Washoe County Medical Society to act in conjunction with the State Medical Society. This committee to get together at once and get in touch with all the medical organizations of the state and induce the local medical organization to bring the subject for better maternity care before either the women's clubs of their towns or through such other means, such as radio or newspaper, as they might think best suited to the purpose. As stated, the object is to coöperate with the intelligent laity concerning better prenatal care for the motherhood of America. The exercises or speeches or whatever else the program might be entitled, to be in honor of Mother's Day, which will fall on May 14. The chair appointed Doctors Paradis, Sullivan, and Samuels.

Business being disposed of, the next consideration was witnessing the following films, as made and served by Dr. Carl Henry Davis, professor of gynecology and obstetrics of the Marquette University, Milwaukee. They were as follows: Watkins Transposition Operation; Mayo Vaginal Hysterectomy; and Abdominal Hysterectomy.

Following the cinema, the society listened to a brief but highly interesting talk by Doctor Parsons, a recent member of the medical body of Reno and the pathologist for Saint Mary's Hospital. His talk was on *Uterine Bleeding,* which talk fitted in very well with the subject of the films as shown. Doctor Parsons called special attention to the fact that the characteristic feature in the curetted endometrium, which when chronically thickened and the type of which was usually found in the granulomata endometrium was characterized microscopically by the Swiss cheese pattern, as designated by Emil Novak of Baltimore. The speaker said that in all suspicious cases an early resort to bioscopy and curettage for diagnostic purposes would in many instances forestall the dreadful inroads from a beginning carcinoma and that an early operation would, without doubt, save the patient. The talk was greatly enjoyed.

There were nineteen members present.

Thomas W. Bath, *Secretary.*

Woman's Auxiliary to the Nevada State Medical Association

Clark County.—The following officers were elected at the first meeting called to organize a Woman's Auxiliary to the Clark County Medical Society on March 18 at the home of Mrs. J. N. Van Meter of Las Vegas: Mrs. Roy W. Martin, president; Mrs. Forest Mildren, first vice-president; and Mrs. J. N. Van Meter, secretary-treasurer.

The meeting followed a charming luncheon for the local physicians' wives, given by Mrs. Van Meter in honor of Mrs. James F. Percy of Los Angeles, national president of the Woman's Auxiliary to the American Medical Association. Mrs. Percy outlined the objects and aims of the auxiliary and suggested activities which may be sponsored. Mrs. Percy stressed particularly that authoritative speakers on health subjects be presented to other organizations, under the auspices of the auxiliary. An earnest and commendable zeal was manifested in the formation of this new organization, encouraged as they were by the Clark County Medical Society. One of the first activities of this new group was to plan for the entertainment of the Nevada State Medical Association and the first annual meeting of the Nevada State Woman's Auxiliary, which will be held at Las Vegas this fall. The state officers are: Mrs. A. J. Hood, president, and Mrs. J. Horace Brown, secretary-treasurer, both of Reno.

Those who signed as charter members at Las Vegas, in addition to the three officers named above, were: Mesdames R. D. Balcolm, C. W. Woodbury, M. L. Herzig, P. R. McDaniel, and J. W. McDaniel.

On March 20 Mrs. R. D. Balcolm was hostess at a delightful tea given in honor of Mrs. Percy and the newly formed auxiliary and its officers, at which thirty guests were present. In the evening the auxiliary members and the Las Vegas Dental Society were guests of the Clark County Medical Physicians at a banquet at the Apache Hotel in honor of Dr. James F. Percy, who, following the dinner, spoke on the subject, *A Review of the Cancer Problem from the Standpoint of Treatment and Prognosis.*

Petition of University Instructors to President von Hindenburg.—Mention has been made in these letters of the distressing effects of the existing economic situation on the progress of science. The situation is worse than is commonly supposed. Statements may frequently be heard from directors of university institutes to the effect that the appropriated moneys at their disposal will be exhausted by the end of the year, whereas these constantly reduced sums are supposed to suffice until the close of the fiscal year, or until April 1.

The result will doubtless be that many scientific institutes will be compelled to limit their research and may be forced to close for a time, although the courses of instruction would have to be maintained. In this situation, a most unusual step has been taken. Eminent research workers in all fields, constituting a list of 140 names of men of science, have sent directly to President von Hindenburg an appeal for the preservation of scientific research. They point out that the Notgemeinschaft der Deutschen Wissenschaft and the celebrated Kaiser-Wilhelm-Gesellschaft zur Förderung der Wissenschaften, with their institutes that are known throughout the world, are being embarrassed in their research work by the lack of funds. They emphasize that any further reduction in their appropriations would be unendurable. They state that the amounts granted to these societies are only a small proportion of the whole federal budget, and that increases within possible limits would "assure the most necessary progress of research." It must be emphasized that the work in the fields of art and science—from the researches of the academies down to the work of independent individuals—must be consecutive in order to be of value. It is not a simple matter that, when funds are not available, a research institute can be allowed to lie idle for a time, a scientific journal can be permitted to discontinue publication, or a scientific society can be allowed to struggle along until better times appear. It is, on the contrary, unquestionably true that the sums withdrawn, during hard times, from intellectual fields must be restored twice and thrice over, at other points, in order to compensate even partially for the damage caused.—Berlin *News Letter. (Journal of the American Medical Association.)*

MISCELLANY

Under this department are ordinarily grouped: News; Medical Economics; Correspondence; Twenty-five Years Ago column; Department of Public Health; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings.

American Medical Association, Milwaukee, Wisconsin, June 12 to 16, Olin West, M. D., 535 North Dearborn Street, Chicago, Secretary.

American Association for Study of Goiter, Memphis, Tennessee, May 15 to 17, R. J. Yung, M. D., Terre Haute, Indiana, Secretary.

California Medical Association, Riverside, California, spring of 1934. (Date to be announced later.)

Congress of Physicians and Surgeons of North America, Washington, D. C., May 9 to 10, John T. King, Jr., M. D., 1210 Eutaw Place, Baltimore, Maryland, Secretary.

Pacific Coast Oto-Ophthalmological Society, San Francisco, June 28 to 30, Frederick C. Cordes, 384 Post Street, San Francisco, Secretary.

Texas State Medical Association, Fort Worth, May 8 to 11, Holman Taylor, M. D., Medical Arts Building, Fort Worth, Texas, Secretary.

Western Branch of the American Urological Association, Vancouver, B. C., August 3 to 5, George W. Hartman, M. D., Secretary.

Medical Broadcasts.*

American Medical Association Health Talks.—The American Medical Association broadcasts on Monday and Wednesday from 9:45 to 9:50 a. m. (central standard time) over station WBBM (770 kilocycles, or 389.4 meters).

There is also a fifteen-minute talk, sponsored by the association, on Saturday morning from 9:45 to 10 over station WBBM.

* * *

San Francisco County Medical Society.—The San Francisco County Medical Society broadcasts every Tuesday from station KFRC, 4 to 4:15 p. m., and over station KJBS from 11:15 to 11:30 a. m.

* * *

Los Angeles County Medical Association.—The radio broadcast program for the Los Angeles County Medical Association for the month of May is as follows:

Tuesday, May 2—KFI, 10:15 to 10:30 a. m., and KECA, 9:45 to 10 a. m. Subject: Childhood Tuberculosis.

Tuesday, May 9—KFI, 10:15 to 10:30 a. m., and KECA, 9:45 to 10 a. m. Subject: Children Who Might Live.

Tuesday, May 16—KFI, 10:15 to 10:30 a. m., and KECA, 9:45 to 10 a. m. Subject: Exercise for Normal Child.

Tuesday, May 23—KFI, 10:15 to 10:30 a. m., and KECA, 9:45 to 10 a.m. Subject: Heart Disease in Children.

Tuesday, May 30—KFI, 10:15 to 10:30 a. m., and KECA, 9:45 to 10 a. m. Subject: Sleeplessness in Children.

Errata.—In the discussion of Dr. Clifford Sweet's paper on "Treatment of Measles" by Dr. William M. Happ (April CALIFORNIA AND WESTERN MEDICINE, page 259, second column, seventh line), the word "case" was inadvertently changed to the word "patient." Correction is here made of the error.

In the copy of the California State Board of Medical Examiners in a recent issue, was an item concerning a Doctor Howson, the given name not being printed. The item referred to Dr. Christopher Howson of Oakland.

* County societies giving medical broadcasts are requested to send information as soon as arranged (giving station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

Government Restrictions Concerning Medicinal Liquor.—On the discontinuance of the use of official prescription blanks, about January 1, physicians will be supplied free by the government with engraved stamps of a convenient size and design, suitable for affixing to a physician's ordinary prescription blanks. A physician who wishes to prescribe liquor will then be required to write his prescription on his ordinary prescription blank, in such form and detail as may be prescribed by regulations, and then, in order to validate his prescription, to affix and to cancel such a stamp. Until the date determined on for initiating the use of such stamps, physicians are to continue to use the present official forms with which they have been supplied.

While the new law provides that a physician shall not be called on to file in any government office any statement of the nature of the ailments from which his patients are suffering, physicians must continue to keep in their offices the book records now required, stating the nature of such ailments. These office records will assume an increased importance with the discontinuance of the filing of prescription stubs with supervisors of permits. These book records continue to be open to inspection by officers charged with enforcing federal prohibition laws. . . . —*Journal of the American Medical Association,* April 8, 1933.

Heart Committee Conference.—The San Francisco Heart Committee of the San Francisco County Medical Society conducted an institute recently on the prevention and relief of heart disease. The lectures, which began on March 15, were given on four successive Wednesday afternoons at four o'clock, in the new Health Administration Building of the San Francisco Department of Public Health.

The lectures were arranged for public health nurses, physical education teachers, and medical social service workers. The program was sponsored by the San Francisco Department of Public Health, the Physical Education Department of the San Francisco Board of Education, and the Cardiac Center of the Baby Hygiene Committee of the American Association of University Women. The program was arranged by the Section on Education and Publicity, of which Dr. John P. Strickler is chairman, assisted by Dr. Ellen Stadtmuller, Dr. Adelaide Brown, and Dr. John J. Sampson. The combined total attendance numbered at least one thousand.

The subject was presented according to the various age levels, as suggested by the White House Conference Committee.

University of California Medical School.—Dr. George W. Crile, head of the Cleveland Clinic, Cleveland, Ohio, conducted a clinic for the faculty and students of the Medical School on April 11.

Dr. J. C. Drummond, professor of biochemistry, University College, University of London, spoke to the faculty and students on April 6. He discussed the general subject of vitamins, with some comments on the clinical features of avitaminosis. Doctor Drummond was the Lane lecturer at Stanford University School of Medicine for 1933.

Dr. William H. Park, director of the laboratories of the New York Department of Public Health, spoke to the faculty and students on March 18.

Colonel William R. Dear of the Army Medical Corps spoke at the Medical School in March. His lecture was based on his experiences as senior medical officer with the American Russian Relief Mission.

Accident Prevention Week.—Governor James Rolph, Jr., has issued a proclamation declaring the week of May 21 to May 27, 1933, inclusive, to be Accident Prevention Week. During that week the Industrial Accident Commission, in coöperation with the California Safety Society, the National Safety Council, the United States Bureau of Mines, and other interested organizations, will hold an All-California Accident Prevention Conference on Wednesday and Thursday at the St. Francis Hotel, San Francisco. At this meeting the speakers will be men and women particularly qualified to speak on their respective subjects.

A plan for community accident prevention councils, which can be put into effect in the different communities will be presented and will coördinate the efforts of the various groups in the community to the end that the enormous loss of life, which is occurring daily in our homes, on the streets and in industry, may be reduced to the minimum.

CORRESPONDENCE

Subject of Following Letter: An Antivivisectionist Communication Referred to in the Editorial Column of this Issue of California and Western Medicine. (See Page 379.)

THE NATIONAL ANTIVIVISECTION SOCIETY
58 East Monroe Street
Chicago, Illinois

To Further a Humane Movement

Dear Fellow American:

Not so very long ago a small group of persons, whose names are synonymous in the public mind with accomplishment in many fields of activity, united for the institution of an effort to inject a new sort of humanitarianism into the current of modern thought.

Today the movement they inaugurated has become national in scope, strength and importance, and has won the sympathies and support of thousands of kindred spirits throughout the United States.

This movement has for its purpose the abolition of so-called "scientific" practices which involve indescribable agony to live, domestic animals used in surgical experimentation. Its forces have been mobilized under the standard of the National Antivivisection Society, from the Chicago headquarters of which you are receiving this communication.

The practices this society are opposing have been pronounced medieval and barbarous by world authorities. They occur daily in laboratories in all parts of the country, and have been denounced by outstanding medical men as futile and fanatic. They are described and commented upon in the pamphlet which accompanies this letter and which is sent to you so that you may be in possession of the facts that outraged the sensibilities of your intelligent fellow Americans and led to the formation of this organization.

We hope that these startling revelations will bring a new recruit into our campaign to stamp out a variety of intolerable evils consequent to the activities of vivisectionists. You will see how they are reflected in increased taxes and nullification of certain rights and liberties to which you, a law-abiding American citizen, are entitled.

We invite you, after considering these facts, to become a member of the National Antivivisection Society, and enclose an application blank for your convenience. Your support is urgently needed in this drive to halt the production and sale of injurious serums and vaccines, and to enact laws making illegal the torture of live animals without benefit of anesthesia.

Incidentally, not one cent of the funds received by this organization is utilized for salaries. They are expended solely in the interest of humane education to the end that vivisection may be abolished.

Looking forward to enrolling you as a member, we are, Yours very truly,

.....
Managing Director.

VETERAN DISABILITIES AND RATINGS*

I

When the Federal Government closed its books for the fiscal year ending June 30, 1932, the American people were shocked to learn that total revenues from income taxes—individual and corporate combined—did not quite cover all the costs of the Veterans' Administration services for the twelve months just ended. Incredible as it seemed, the figures were indisputable. Income-tax collections for the year, as officially reported by the Secretary of the Treasury, were $1,057,335,853, while the combined disbursements for veterans' pensions, hospitalization, disability allowances, construction, bonus loans and payments, and administrative expenses came to the neat sum of $1,064,268,966.

Of the many bewildering fiscal problems brought into sharp relief by the depression, this, perhaps, was the most alarming—and for very good reason. During the decade from 1923 to 1932, income taxes had provided, on the average, 51.41 per cent of the federal revenues. At the close of that period, a single function of government—one administrative unit out of fifty-one in the federal establishment—called for more money in a year than had been garnered from the principal source of revenue.

Here was a critical situation indeed. How did it happen that things were brought to such a pass?

Back in 1921 the full cost of veterans' services had been $662,481,718. This figure was hailed at the time as far and away the largest annual appropriation for such purposes which any government had ever made in all human history. True, there were still on the rolls of the Pension Bureau a thinning group of Civil War and Spanish-American War veterans; but their share of the annual bounty was but $260,000,000, only about one-third of the total. The balance of $402,000,000 was entirely for World War benefits. In the rosy dawn of the new economic era, the American people felt rather proud that they were caring for their war veterans in magnificent style. All of the direct death claims for field casualties in the World War had long since been paid, and the official records of the War and Navy Departments showed that, of the survivors of the conflict, there were only 234,161 who had been wounded in action. If each of these wounded veterans had been granted an outright allowance of $1,000 a year (some $400 more than the then average per capita income in the United States), the maximum annual cost would have been but $234,161,000. To be actually paying annually almost twice that sum for hospitalization, vocational training, war risk insurance, and compensation, appeared, under the circumstances, a truly American expression of noble patriotism, a fine acceptance of a high moral obligation, satisfactory to the national conscience from every point of view.

By 1930 the combined disbursements in behalf of the veterans had increased to $835,275,349, and the next year the figure leaped across the billion mark for the first time, to $1,021,559,957. Since 1931 the annual expenditures, including authorizations for the fiscal year ending June 30, 1934, have averaged slightly more than $1,000,000,000. Nor is this all. The special economy committee of the House of Representatives reported on April 25, 1932, that veteran costs for the decade 1933-1942 would, under prevailing laws, aggregate $12,000,000,000, or an average of $1,200,000,000 annually. Actuaries of the Treasury Department have submitted informal estimates to the House Committee on Appropriations placing expenditures for the veterans during the fiscal year 1949 at $2,350,000,000. . . .

It is interesting to compare America's treatment of her veterans with that of some of the other principal powers engaged in the war. Germany, France, Great Britain, Italy, and Canada mobilized between them

* Excerpts from an article by Lawrence Sullivan in the *Atlantic Monthly*, April, 1933. (See also page 404.)

34,244,000 men. In 1932 these countries spent a total of $891,000,000 to take care of their ex-soldiers. The United States mobilized 4,757,929 men, and the sum set aside for veterans in 1932 (after excluding all save World War benefits) was $860,635,000. Our expenditure for veterans last year was at the rate of $2,668.66 for every American soldier killed and wounded in action; the comparable figure for Germany, France, Great Britain, Italy, and Canada combined was only $53.60. . . .

II

A three-way policy of compensation, hospitalization, and vocational rehabilitation for all wounded soldiers and sailors was enacted in a measure which came out of Congress as early as October, 1917. Six months after the declaration of war against Germany, President Wilson signed the enlarged War Risk Insurance Act, which provided (1) compensation for death and disability in the line of duty, (2) family allotments and allowances for the dependents of both officers and enlisted men, (3) hospital treatment for all men injured in the line of duty, (4) vocational rehabilitation for permanently maimed veterans, and (5) term life insurance at an average cost of $9.60 a year for every $1,000 of protection—a figure which placed upon the national government all the extraordinary risks of war over and above those covered in the peace-time actuarial tables, as well as all administrative costs. Private insurance companies at the time were charging $70 a year per $1,000 for the full war risks.

The general tenor and scope of this basic veteran legislation may be illustrated by a single provision (Section 302, subdivision 3), never before written into law by a nation at war:

"In addition to the compensation above provided, the injured person shall be furnished by the United States such reasonable governmental medical, surgical, and hospital services and with such supplies, *including artificial limbs, trusses, and similar appliances,* as the director may determine to be useful and reasonably necessary."

It is worthy of note that this bill, which still serves as the theoretical basis of all our elaborate veterans' administration, and which has been accepted throughout the entire world as the most equitable and comprehensive rehabilitation program ever enacted, became operative three years before the first veterans' league was organized. While it was under legislative consideration it was criticized on the ground that it was too generous, since it provided double indemnity through both compensation and insurance; but Congress justified this on the principle that the government owed the compensation for war injuries, regardless of any other benefits which a disabled soldier might collect from insurance. . . .

III

Before the Bureau of War Risk Insurance had been geared up to five miles of checks a day, a flood of liberalizing amendments to the original all-embracing compensation law poured in upon both Houses of Congress. So insistent became the demand for the inclusion of new classes of beneficiaries that an omnibus amendatory bill was soon passed, and it was signed by President Wilson on June 25, 1918. It provided a generally broader base of compensation, and abolished many of the legal formalities set up in the original law to limit awards strictly to those suffering disabilities directly connected with the military service. . . .

In February, 1919, a direct cash allowance of $60 was provided for every person discharged from the military service, and in December of the same year the second general "liberalization" of the 1917 law was enacted. One of the most burdensome indirections of this second revision was Section 300, which made retroactive to April 6, 1917, the legal fiction that everyone accepted in the military service during the World War was in sound physical and mental condition. Any incapacity whatever suffered during the term of service thereby became a disability "incurred in the line of duty."

A further amendment to this section, in March, 1925, provided specifically that in cases of paralysis, paresis, blindness, and similar afflictions, no application could be denied because of the veteran's "own willful misconduct" either before or after his discharge. . . .

IV

On March 4, 1923, the 1917 law was again amended; this was its third "liberalization." The general legislative method employed in all these revisions was exhibited once more, in connection with the sections dealing with postwar tuberculosis. The original act provided conclusive presumption of service connection in all cases of "pulmonary tuberculosis" developed within two years after discharge. Reopening the section on the ground that many gas victims might become patients after two years, the veterans' lobby extended the presumptive period to three years.

But while thus revising the text they also struck out the word "pulmonary," thereby bringing in some 12,000 cases of other forms of tuberculosis developed since the war. Under the presumptive clause, of course, each of these new cases was automatically established as contracted "in the line of duty." . . .

V

First, the bonus bill was whipped through both houses over President Coolidge's veto. Next, the whole body of veteran law was codified in the World War Veterans' Act of June 7, 1924. In the process, scores of new "liberalizing" amendments were added, one of which extended to January 1, 1925, the presumptive period of service origin in all cases of tuberculosis, neuropsychiatric disease, paralysis agitans, and certain other afflictions. . . .

VI

Hence, there was another general revision of the administrative code in 1925, another in 1926, another in 1928, and yet another in 1930. Each brought large new classes under the provisions of the hand-out system. Each "liberalized" the requirements regarding evidence of service connection in disability claims. . . .

In 1930 the last pretense of limiting pensions to line-of-duty disability was abandoned. In that year a blanket provision was written into the law authorizing any veteran to claim benefits for sickness or injuries suffered *after* his term of military service. This eligibility extended to hospitalization as well as to monthly maintenance checks. So inclusive were its terms that a veteran who, in 1926, fell off a ladder in his own basement actually received free hospitalization plus a "disability allowance" for his broken leg. This general class of disability allowances, for injuries not even presumably connected with the military service, cost no less than $105,147,800 during the first two years. And this sum was in addition, of course, to the $189,540,380 paid out in 1932 for compensation in cases in which the disability, either presumably or in fact, arose from war service. It was in addition also to hospitalization costs of $60,000,000 for the fiscal year 1932.

Testifying before the joint committee of the House and Senate which was set up to investigate abuses of the veteran laws, spokesmen for the National Economy League, in December, 1932, tabulated annual expenditures of $457,000,000 which might be stricken from the 1934 veterans' budget without depriving any individual of either compensation or care originally awarded for military disabilities.

Similarly, in his last annual report, the Director of the Veterans' Administration, Brigadier General Frank T. Hines, informed Congress that the veterans' hospital load as of June 30, 1932, was 39,393, of which number 15,460 patients were being treated for service-connected disabilities, real or presumptive, while 23,472 were hospitalized for postwar sickness or injuries. In two special reports during the last five years the American Medical Association has vigorously denounced the hospitalization of nonservice cases as an indefensible drain upon the national treasury. But, as one of the Capital's most flamboyant veteran fixers once observed in an informal moment, "Who is the American Medical Association?" . . .

VETERANS' COMPENSATION

Summary of President Roosevelt's New Regulations*

On April 1 an Associated Press dispatch from Washington stated the White House issued the following explanatory summary of the 18,000-word order by President Roosevelt, slashing federal expenditures for veterans by some $400,000,000:

Regulation No. 1. This pertains to the entitlement of pensions and is divided into three parts.

Part 1 of the regulation authorizes the payment of pensions to former members of the military or naval service who are disabled as a result of disease or injury incurred or aggravated in the line of duty in the active military or naval service during the Spanish-American War, the Boxer rebellion, the Philippine insurrection, and/or the World War.

STRESSES WAR SERVICE

The basic provisions are that the injury or disease must have been contracted or aggravated in the line of duty and without misconduct, in the active military or naval services during the Spanish-American War or the World War. As to persons serving in the Philippine Insurrection or the Boxer Rebellion, it is further required that they must have actually participated in hostilities. An extension is made as to the date of cessation of hostilities in the cases of those men who served in the Moro Province during the Philippine Insurrection and in Russia during the World War. It is not required that the disease or injury must have been incurred, or aggravated, prior to the cessation of hostilities. In all cases it is required that the person to be entitled must have been honorably discharged from the service.

A rebuttable presumption of soundness, except as to defects noted at the time of entry into service, for all persons who served ninety days or more is authorized.

RATES OF PAYMENT

A presumption of service connection or chronic diseases becoming manifest to a 10 per cent degree or more within one year from separation from active service is allowed, but the Government is authorized to rebut such presumption where there is affirmative evidence to the contrary or evidence to establish that an intercurrent injury or disease which is a recognized cause of such chronic disease has been suffered between the date of discharge and the onset of the chronic disease, or in case the disability is due to the person's own misconduct.

The monthly rates to be paid for war-time disabilities are: 10 per cent, $8; 25 per cent, $20; 50 per cent, $40; 75 per cent, $60; and 100 per cent, $80. If the disabled person has suffered the anatomical loss or the loss of the use of one foot or one hand or one eye, the rate prescribed is increased by $20 per month. If the disabled person has suffered the anatomical loss of both hands or of both feet, or of one hand and one foot, or is so helpless as to be in need of regular aid and attendance, the total rate is $100. Certain additional specific rates for the more seriously disabled are provided.

Payment of pension on the basis of war-time rates is authorized for those men who applied for enlistment or were drafted or called into the National Guard during the World War and before being finally accepted for service were injured in line of duty.

PENSIONS TO SURVIVORS

Pensions to widows, children, and dependent parents of veterans who died from disease or injuries incurred or aggravated in the line of duty in the active military or naval service during the before specified war periods are authorized. The rates adopted are those now provided under existing law for the same class of dependents of deceased World War veterans.

Part 2 of this regulation authorizes the payment of pensions to former members of the military or naval service who incurred disability in line of duty in the active military or naval service other than during war-time enlistments. In this class of cases it is required that the disability be contracted or aggravated in line of duty and without misconduct in the active military or naval service, and that the person be honorably discharged.

The rates of pension payable monthly are: 10 per cent, $6; 25 per cent, $12; 50 per cent, $18; 75 per cent, $24; 100 per cent, $30. If the disabled person has suffered an anatomical loss or the loss of the use of one foot or one hand or one eye, the rate provided is increased by $10. Special rates are provided for the most seriously disabled at 50 per cent of the rate provided for the same types of disabilities which were incurred in war-time service.

Payment of pensions to the widow, child or children and/or dependent mother or father of any person who died as a result of injury or disease incurred or aggravated in active military or naval service during peace time is authorized. The rates for these dependents are approximately 75 per cent of the rates authorized for the dependents of those who died from war-time disabilities.

Part 3 authorizes payment of pensions for nonservice-connected disabilities and deaths of veterans of the Spanish-American War, including the Boxer rebellion and the Philippine insurrection, and/or the World War.

The following requirements are set forth: (1) Ninety days or more service; (2) entry into the service prior to the cessation of hostilities; (3) honorable discharge; (4) the existence of permanent and total disability not the result of misconduct.

As to veterans who served in the Boxer rebellion or the Philippine insurrection, it is required that they must have actively participated therein to be entitled. In determining entitlement under this part of the regulation, it is not required that the ninety days' period of service shall have been completed before the cessation of hostilities.

The rate of pension for those permanently and totally disabled is $20 per month. A pension of $6 per month to those Spanish-American veterans over the age of sixty-two years is granted.

Pensions under this part of the regulation cannot be paid to any unmarried person whose annual income exceeds $1000 or to any married person or any person with minor children whose annual income exceeds $2500. This income provision, however, will not bar the payment of the $6 monthly pension to Spanish-American War veterans over the age of sixty-two years.

The payment of pension to widows and children of deceased veterans of the Spanish-American war, including the Boxer rebellion or the Philippine insurrection, is authorized at approximately 50 per cent of the rates now provided for such persons, that is, $15 per month for a widow with allowances for children.

Regulation No. 2. This contains the provisions relative to the filing of claims, the making of awards, the discontinuance of payments, and the review of claims. The provisions of this regulation are substantially in accord with the existing practices, except that it is specifically provided that if after calling for evidence in any claims such evidence is not received within six months, or excuse offered for noncompliance with the call, that the claim shall thereafter be barred.

Regulation No. 3. This authorizes the establishment of a new rating schedule. This schedule is to be based upon the average impairment resulting from disabilities in all occupations so that all men with the same disability will receive the same pension.

* See also page 402. Also references in opening article by Doctor Wilbur, page 337.

This schedule of disability ratings provides only five rates of disability, namely, 10 per cent, 25 per cent, 50 per cent, 75 per cent, and 100 per cent. Heretofore the rating schedules have been from 10 to 100 per cent at 1 per cent intervals.

Regulation No. 4. This merely carries into effect the provisions of Section 17 of Title I of the Act, which provides, with certain exceptions, that those veterans suffering with diseases or injuries directly connected with the active military or naval service should not be removed from the rolls.

Regulation No. 5. This pertains to entitlement to emergency officers' retirement pay and provides that any emergency officer heretofore granted retirement pay shall be entitled to continue to receive such retirement pay if the disability for which he has been retired with pay resulted from disease or injury incurred in line of duty during war service. It is further required that the officer must have been heretofore properly rated 30 per cent disabled, and that the disease or injury or aggravation of disease or injury directly resulted from the actual performance of military or naval duty.

Regulation No. 6. This authorizes hospital and domiciliary care, including necessary medical treatment. It also authorizes, within the limitation of veterans' administration facilities, hospital treatment for veterans of wars who are suffering with injuries or diseases which were incurred in the active military or naval service and domiciliary care to those veterans who served in the active military or naval service for a period of ninety days or more, who are suffering with permanent disabilities or tuberculous or neuropsychiatric ailments which incapacitate them from earning a living. It is further required that, as to this latter class of veterans, they have no adequate means of support. This is a marked departure from previously existing law. First, it excludes from entitlement peace-time veterans. Second, it provides hospital treatment, as such, only for veterans of wars, suffering with diseases or injuries which were incurred or aggrevated in line of duty in the active military or naval service. Third, it requires ninety days' service to be entitled to admission for domiciliary care. Fourth, hospital or domiciliary care for nonservice-connected temporary conditions is no longer authorized.

This regulation also authorizes the furnishing of clothing to a person in veterans' administration facilities, only where the veteran is indigent and the furnishing of clothing is necessary to protect health or sanitation, or where the veteran requires special clothing made necessary by the wearing of prosthetic appliances.

Under the provisions of this regulation, no person is entitled to receive domiciliary, medical or hospital care, including treatment, who resides outside the continental limits of the United States, or its territories or possessions. Further, it is provided that the pension of any person suffering with a service-connected disability who is being furnished hospital treatment, institutional or domiciliary care by the United States or any political subdivision thereof, shall not exceed $15 per month, but that if there is a dependent wife, child or children, dependent mother or father, the difference between $15 and the amount otherwise payable shall be paid to such dependents.

Regulation No. 7. Authorizes the granting of medical care to veterans suffering with service-connected diseases or injuries. This regulation merely carries on the existing practices with regard to this class of cases.

Regulation No. 8. Pertains to yearly renewable term insurance and authorizes the conversion of such insurance to United States Government life insurance in those cases where the insured had disappeared and such insurance is being continued by payment of premiums by the beneficiary. It also authorizes conversion to United States Government life insurance in those cases where an insured who is now totally and permanently disabled and drawing benefits recovers from such permanent total disability in the future.

Regulation No. 9. Pertains to burial of deceased war veterans and authorizes the issuance of a flag to drape the casket and after burial to be given to the next of kin in all cases. It authorizes an allowance for funeral and burial expenses, including transportation of the body, in an amount not to exceed $75 unless (*a*) the veteran's net assets at time of death, exclusive of debts, equals or exceeds $75; (*b*) the veteran has accrued benefits due from the veterans' administration in an amount equal to or in excess of $75; (*c*) an allowance for burial and funeral, including transportation, is provided by a state, county, or fraternal organization, etc.

Regulation No. 10. Contains the miscellaneous provisions, such as definitions, etc., and is particularly important in the following respects:

One, provides that no person holding an office or position, appointive or elective, under the United States Government or the municipal government of the District of Columbia or under any corporation, the majority of the stock of which is owned by the United States, shall be paid a pension or emergency officers' pay, except (1) those receiving pension or emergency officers' retirement pay for disabilities incurred in combat with an enemy of the United States, and (2) those persons so employed who are protected by the specific provisions of the Act. As to such latter class, it is provided that the rate of pension shall only be $6 per month.

Two, persons living outside of the continental limits of the United States, exclusive of Hawaii, Alaska, and the Panama Canal Zone, while so residing, shall only receive 50 per cent of the amount of pension or emergency officers' retirement pay otherwise provided.

Three, defines those persons who are entitled to benefits and who are barred from participating in decisions. This definition is that those persons who are in receipt of monetary benefits on the date of passage of the Act and whose right to receive monetary benefits continues under the provisions of rule No. 2 are prohibited from participating in decisions under the Act.

Regulation No. 11. Deals with the disclosure of information and the furnishing of copies of official records. It is substantially in accordance with previously existing law, except that it authorizes the administrator, with the approval of the President, upon determination that the public interest warrants or requires, at any time and in any manner, to publish any or all information of record pertaining to any claim.

Regulation No. 12. Provides a presumption of entitlement to pension for Spanish War veterans now on the rolls and for the widows, children and dependent parents of deceased veterans of the World War are now on the rolls, as of the last day of the month in which such determination is made. It further provides that the Government shall review all of the claims and where it is in a position to rebut the presumption, either on medical judgment or specific evidence, the benefits being paid shall be discontinued.

It is estimated that the savings which will result from the adoption of these regulations is approximately $400,000,000, and while it is appreciated that many thousands will be adversely affected, no estimate as to exact numbers can be given until the reviews authorized have been accomplished.

SPECIALISM IN MEDICINE *

DR. RAY LYMAN WILBUR, Washington, D. C.: Specialism was an inevitable accompaniment of the advance of modern medicine. On the whole, it has had most wholesome results, both in the care of the sick and in the extension of knowledge.

In the United States it has developed practically free from control. The abuses that were current in the uncontrolled medical education of three or four decades ago are now showing themselves in nearly all the specialties. It was necessary in the control of medical education to obliterate or amalgamate existing teaching institutions, to develop standards for laboratories, hospitals and medical schools, to bring about state legislation controlling the practice of medicine and surgery, and to endeavor to influence through medical societies, social organizations and law the inadequacies of free and untrammeled medical training. In this process of changing and maturing medicine, the American Medical Association, through the Council on Medical Education and Hospitals, has had a dominating influence. . . .

It has been frequent in recent years for self-anointed specialists to present themselves to the public without adequate training and without passing through a well-defined period of preparation. Each man was a law unto himself. Along with this has gone the development of great skill on the part of many individuals in the specialties. Time has shown a sufficient number of difficulties, if not failures, among specialists, to warrant the handling of this question in a way that will not only protect the best interests of the public, but also bring about growth in the training and skill of those who select special fields for their medical work. Specialism is here to stay and to grow.

In approaching the question from the standpoint of the American Medical Association, it seems that we should realize that we cannot wisely disturb specialists who are now established in their profession, nor insist on a specific training for them. Whatever we may wish to do in the way of suggestions for training can apply only to new men. It is, though, well within the function of the Council on Medical Education and Hospitals to set up minimum standards of education for all who are in the future to be recognized as specialists and also to require certain standards for those whose names are to be published in any list of the association. It might be said that this can better be done by certain of the special societies, but it does not seem wise to allow specialism to be controlled by self-controlled organizations often having in their membership certain individuals who make it their function to "freeze out," for personal reasons, men who may be equally qualified. Also, it is not wise to wait until the police power, exercised through licensing, can function so far as the various state boards of licensure are concerned.

Granted that there is an evolution going on in specialties of medicine and that we are in a transition period offering unusual difficulties of control, it seems nevertheless that now is the time to attack the problem and that, so far as the council is concerned, it is within the power of the council, and technically possible, to (1) provide certain minimum standards of education and training for specialists and to list in the American Medical Association Directory, or in some special directory, those whose achievements equal these standards; (2) provide lists of schools or institutions approved for the training of specialists; (3) list hospitals offering residencies or other positions suitable for the training of specialists; (4) come to a decision as to the way in which those who are already in special fields shall be designated; (5) work out, in conjunction with the Association of American Medical Colleges, the American Hospital Association and the National Board of Examiners and the national societies, constructive plans for dealing with those who plan to enter special fields.

It would be possible also to localize lists of specialists so that they could become available in the different states, cities, and counties. While there are no doubt some difficulties associated with this program, the record of the Council indicates that it is in the best position to speak with the voice of the entire medical profession. Its continuity of policy and personnel, its freedom from professional jealousies and political control, permit it to make impartial judgments. It has available unequaled facilities and established machinery for carrying on its work. The biographic files of the association contain the most complete information anywhere in the country regarding the membership of the medical profession. . . .

The council can proceed without the action of the legislatures and free from outside interference. Its work can be carried on within the profession and can be united with all other constructive forces. We know that the method is effective for it has worked before. Should it be desired, the Council on Medical Education and Hospitals stands ready to carry on work in this new field to the best of its ability.

DISCUSSION

DR. LOUIS B. WILSON, Rochester, Minnesota: Despite the popular publications by inadequately informed economists which have tended to create distrust of the medical profession in the minds of lay readers, there are few laymen who in the event of complicated illness in their own families will attempt unaided to select a specialist. They rightly, for the most part, fall back on the advice of their family physician. . . . We must not forget that approximately four thousand young men and women begin the practice of medicine each year. Most of these have inadequate data on which to make a selection, yet they are the ones who most need consultants and whom it is to the greatest interest of the public and of the profession that they start right.

The essential qualifications which the family physician seeks in a specialist are (*a*) competence, (*b*) honesty, and (*c*) good hospital connections. . . . I believe with Doctor Wilbur that the American Medical Association is the only organization which can bring such information accurately, economically and authoritatively to the medical profession. The American Medical Association is strategically and financially better able to collect and publish economically such a combined list of all specialists than could possibly be done by the several specialty boards themselves. . . .

DR. DEAN LEWIS, Baltimore: . . . One of the main things about this specialty program is informing the public. I think probably the best means of doing that is through the American Medical Association, through the directory. The association has the equipment. It can use special societies. As far as informing the public is concerned, I think this is the best method, through qualifying boards without examining boards. Whether this is ever going to stop the unethical part of practice, I do not know. I never expect to see fee splitting and unethical things in practice rooted out until the highest type of medical profession develops. That is a moral thing. A man ought to know it; if he does not know it I often think he cannot be educated. Sometimes I get a little discouraged about this because a patient picks out a doctor for a lot of different reasons. Whatever qualifications the doctor may have, if he likes the doctor he is going to employ him.

DR. WILLIAM P. WHERRY, Omaha: The symposium this afternoon takes me back seven years to the time when the otolaryngologic board was first contemplated. At that time we constructed several hypothetical premises from which we intended to function. Ex-

* Excerpts from the report by Chairman Wilbur and the discussion thereon, at the February 1933 Annual Congress on Medical Education and Licensure, Chicago. (See also references to specialism in Doctor Wilbur's address, page 338.)

perience, however, has quite completely changed our concepts. We now realize full well that we are not entirely a qualifying board, that we are not an examining board, but we are a board to determine "Is this candidate before us a safe man?" We keep in mind the ultimate object, the patient. "Is he a safe man?" To me that is the keynote of the special board's interpretation of the candidate. That the special boards will enter into graduate instruction, there is no question. It has been appalling to the otolaryngologic board to realize the carelessness with which graduate instruction is carried on. There has been very little supervision. We have realized that in the final analysis a school will be rated by its output, by the graduates. . . .

DR. AUSTIN A. HAYDEN, Chicago: . . . The question of designation of specialists came up before the Chicago Medical Society within the last month. The radiologists asked the council of the society to make a ruling on whether or not the printing of their names in the advertising book of the Chicago Telephone Company, under a specially designated group, known as radiologists with the title of doctor of medicine, would or would not be considered unethical. The society decided that the printing of such a column in the Red Book of the Telephone Company of Chicago would not be considered unethical. These men said that not many of their people came to them through referring physicians and they felt that the general public was entitled to know who were the qualified men in Chicago who were operating x-ray laboratories. That was the answer of our local society, and I believe that it was the correct answer. . . .

DR. RAY LYMAN WILBUR, Washington, D. C.: I should like to say that the council already publishes lists of these specialists, and we publish them whether they are members of the association or not. The data are sent in by the members, and we record that they belong to special societies; if they state they are specialists, we so indicate, whether they are members of the association or not. So while we publish our registry now on a certain basis, we have the responsibility, really, of presenting these lists, but we have not carried out the functions of investigation and organization that should be carried out if those lists are to be fully defended. It is largely a matter of doing a good job instead of the one that is being done now. I think, too, that it can be done without any great amount of expense and be done readily in cooperation with all the organizations involved. I have a very definite opinion that no self-selected, self-appointed society that chooses its members on some basis that it sets up can be allowed in America to determine who shall be a specialist and who shall not. The minute we get into the hands of special societies and they tell us what to do in the medical profession, we have lost the opportunity to grow in American medicine.—*Journal of the American Medical Association*, Vol. 100, No. 14.

SPECIALISM IN VIENNA *

Regulations Concerning Use of the Term

During the deliberations of the Vienna chamber of physicians, last year, Doctor Sonnenfeld presented a communication in which he explained the present regulations concerning the assumption by physicians in Austria of the title of "specialist." At present there are no legal regulations bearing on the right to assume and use the title of specialist in the republic of Austria. Only with regard to the admission of physicians to the ***krankenkassen*** having free choice of physician has any regulation of the specialist problem been attempted. As affecting the contracts between the organization of the medical profession and the ***krankenkassen,*** the following regulation obtains: "Only such physicians who, following a special course of training, confine their practice to a special branch of medicine are entitled, in principle, to announce themselves as specialists. Such physicians are recognized by the economic organization of physicians as specialists and are announced to the ***krankenkassen*** expressly as specialists for a certain branch of medicine. They are not permitted to serve, at the same time, as general practitioners." Every specialist must be a member of the Verband der Fachärzte (league of specialists) in Vienna if he wishes to practice in Vienna. In the provinces outside Vienna the title "specialist" is approved, by the chamber of physicians having jurisdiction, only after the applicant has furnished evidence of his special training. The special training required has been standardized by the Verband der Fachärzte in the following manner: A specialist can practice in only one of the following fields: surgery, dermatology, gynecology (including obstetrics), internal medicine, respiratory organs, neurology and psychiatry, ophthalmology, orthopedics, otorhinolaryngology, pediatrics, physical therapy, roentgenology, urology and medical laboratories, or a total of fourteen specialties. That holds for Vienna; in the provinces the three specialties, orthopedics, urology and medical laboratories drop out. In case of need, the chamber of physicians has the right to combine two or more specialties (internal medicine and pediatrics, and respiratory organs, or ophthalmology and otorhinolaryngology, or surgery with gynecology and radiology). Every specialist in Vienna or in the provinces must first request admission to the narrower group and furnish proof that he has fulfilled the conditions for admission as specialist, which, for the nonoperative branches, are at least four years of training in a clinic or hospital service dealing with his specialty, and, for the operative specialties, five years of training and experience in such an institution. The applicant must also furnish proof that, for at least two years of the four to five-year period, he served as assistant to the department head and was thus compelled to work more or less independently. The applicant is not recognized by the Verband der Fachärzte until the group of specialists concerned has admitted him; he can then enter into contracts with the health insurance societies (***krankenkassen***). But in case a physician does not seek service with the ***krankenkassen,*** he can select any specialty he desires, specialize in that branch of medicine, and announce himself as a specialist in that branch; and, if he desires, he can practice also general medicine, which the members of the specialist groups are strictly prohibited from doing, as has already been mentioned. But he cannot be admitted to membership in the Verband der Fachärzte. It should be noted, however, that the general public has become so used to regard and patronize only the members of the Verband der Fachärzte as specialists that the other specialists receive little consideration. The only specialist title that is protected by law in Austria is that of ***zahnärzt,*** (physician-dentist), since the study of dentistry is regulated by law and only doctors of general medicine who devote themselves exclusively to dentistry may call themselves ***zahnarzt,*** other persons ("dentisten," technicians, and others) not being permitted to refer to themselves as ***zahnärzte.*** In Vienna there are something over 4,000 registered physicians, for a population of 1,810,000. Of that number, 800 are hospital physicians, 1,220 specialists, 650 physician-dentists (***zahnärzte***), and the remainder (about 1,400) general practitioners, 290 of whom are women. Among the specialists and physician-dentists there are 110 women. In Austria, outside Vienna, there are about 2,600 registered physicians, with about 600 specialists and physician-dentists.

* Vienna correspondence in Journal of the American Medical Association, Volume 98, Number 9.

TWENTY-FIVE YEARS AGO*

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. VI, No. 5, May, 1908

From some editorial notes:

Coronado Meeting.—The thirty-eighth annual meeting of the Medical Society of the State of California, just held at Coronado, was a notable one and eminently successful. Seldom has a meeting been held that more completely marked good feeling and good fellowship, with a total absence of all bickerings and petty squabbles. . . .

The New Officers.—As provided by the constitution, the election of officers was taken up by the House of Delegates as the first order of business at the second session Wednesday, April 22. San Jose and Del Monte were nominated for the next annual meeting, and the former place chosen by a large vote. Dr. Joseph M. King of Los Angeles then nominated Dr. W. W. Beckett of Los Angeles for president. The nomination was seconded by Dr. F. Dudley Tait of San Francisco, and as there were no other nominations, the secretary was instructed to cast the ballot of the House of Delegates for Doctor Beckett for president for the ensuing year. . . .

From an article on "Report of the Pure Food Commission" by F. C. E. Mattison, M. D., Chairman.

The Pure Food Commission was a special committee of our society authorized by the House of Delegates and Council at the 1907 meeting at Del Monte, and consists of five members appointed by the president of the society. . . .

As already stated, we believe the name a misnomer, and recommend that this committee be known instead as the Public Health Commission of our society. We trust, also, that the work it is designed to take up will lead you to continue this commission as one of your committees.

From an article on "Fourth Annual Report of the Tuberculosis Committee" by F. M. Pottenger, M. D., Chairman.

There has at last been organized in California a State Association for the Study and Prevention of Tuberculosis. A local organization is also in the process of formation in San Francisco, and the subject of the prevention of tuberculosis has been brought before many localities throughout the state during the past year by public lectures, some of which were under the direct auspices of our committee. . . .

From an article on "Report of the Committee on Medical Education" by F. Dudley Tait, M. D., Chairman.

The dominant note in medical education matters in California during the past year is the Association of American Medical Colleges' standard of requirements to the strict enforcement of which California owes its foremost position among the states as well as its controversies in the legislature, in the courts, and with medical colleges. . . .

From an article on "Report of the President to the House of Delegates" by George H. Evans, M. D.

It is the function of county societies to educate the laity on many of the large problems of state medicine, and to this end public meetings should be frequently held. If we are to be consistent exponents of preventive medicine, then we must instruct the layman on these matters of which he is so ignorant. . . .

* This column strives to mirror the work and aims of colleagues who bore the brunt of society work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and recent members.

(Continued on Advertising Page 17, front section)

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA*

Results of Board of Medical Examiners Examination

Charles B. Pinkham, M. D., Secretary-Treasurer of the Board of Medical Examiners of the State of California, reports results of the written examination held in Los Angeles, February 28 to March 2, 1933. The examination covered nine subjects, and included ninety questions for physician and surgeon applicants. An average of 75 per cent is required to pass. An allowance of 1 per cent added to the general average is allowed by the Medical Practice Act for each year of medical practice under a license granted elsewhere than in California, provided the applicant has not fallen below 60 per cent in more than one subject.

Sixty-four applicants wrote the examination, all being graduates of medical schools.

Among the examinees were graduates of extra-state medical schools, including Austria, Canada, Germany, Italy, and Russia.

The following colleges were represented:

PASSED

College	Year of Graduation	Per Cent
College of Medical Evangelists	1932	88 5/9, 83 4/9
		79 2/9
Cornell	1931	83 8/9
Creighton University	1932	82 1/9
George Washington University	1932	83, 83 2/9
Howard University	1931	85
Indiana University	1932	80 6/9
Jefferson Medical College	1928	79 1/9
McGill University Faculty of Medicine, Canada	1924	83 6/9
	1927	81 2/9
	1932	82 5/9
Northwestern	1932	87 6/9, 79 8/9
		83 8/9, 78 4/9, 79 4/9
Rush	1928	79 1/9
	1931	85 8/9
	1932	76 1/9
St. Louis University	1932	81 7/9, 80 4/9
		80 8/9
Stanford University	1932	88 1/9
State University of Iowa	1932	82 7/9
Temple University	1932	83 5/9, 83 6/9
		78 2/9, 78 4/9, 80 6/9, 76
University of California	1932	85 8/9
University of Colorado	1931	81 4/9
	1932	80, 81 4/9
University of Illinois	1906	89
University of Michigan	1931	84 8/9
	1932	81 1/9
University of Minnesota	1932	80 6/9
University of Nebraska	1932	82 5/9
University of Oregon	1932	80 1/9, 84 7/9
		83 6/9, 83, 81 7/9, 79 4/9
University of Tennessee	1931	85 3/9
University of Texas	1932	83 6/9
University of Wisconsin	1932	84 6/9, 79 6/9
		85 4/9
Washington University	1931	88
Woman's Medical College of Pa.	1932	83 5/9
Yale University	1931	81 8/9, 84 3/9

FAILED

Carl-Frances University, Austria	1928	65 5/9
Laval University, Quebec, Canada	1912	62 5/9
Northwestern	1932	72
Psycho-Neurological Institute Medical College, Russia	1917	69 7/9
Royal University of Rome, Italy	1928	58 1/9
University of Charkov, Russia	1924	66 6-9
University of Greifswald, Germany	1920	70 3/9
University of Illinois	1931	71 5/9

* * *

LIST OF SUCCESSFUL APPLICANTS

The following is a list of the successful applicants:

Carroll Baugh Andrews, San Leandro.
Robert Van Batterton, San Diego.
Ralph Arthur Behrend, Los Angeles.
Ronald Earl Brown, Saskatchewan, Canada.
Jacob Harold Cantarow, Los Angeles.
Willard Wayland Carey, Modesto.
Harold Robert Carter, Santa Barbara.
Albert Stillman Chase, Glendale.

* The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

(Continued on Advertising Page 18, front section)